



Minnesota State Zoological Board.
Zoo-Related Organizations Files.

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VETERANS ADMINISTRATION
HOSPITAL
54TH STREET AND 48TH AVENUE SOUTH
MINNEAPOLIS, MINNESOTA 55417



December 5, 1977

IN REPLY
REFER TO:

Ms. Jan Olsen and
Mr. Don Bridgwater
Minnesota Zoological Garden
12101 Johnny Cake Ridge Rd.
Apple Valley, MN 55124

Dear Jan and Don:

I would like to summarize briefly the charge laid upon us by the AAZPA and AAZV ISIS Site Review Committee at the meeting of November 14 and 15 held at the Minnesota Zoological Garden. The group arrived on Sunday. We had dinner with them Sunday evening, which served primarily to informally get acquainted and to discuss a variety of peripheral matters. No particular ISIS items were considered at the time.

The meeting for Monday, November 14, was set forward an hour and began at 9:00 rather than the scheduled 8:00 A.M. The presentations followed the agenda, as prepared by Jan. There were presentations by Don on history, by Dale on systems design, by Don on policy making procedures. Jan then reviewed ISIS operations with the proviso that the reviewers might interrupt and suggest emphases or particular questions of interest to them. She provided a series of fact sheets and data sheets concerning most of the items indicated on the agenda. There was a particularly detailed analysis of finances and participants since a major concern of the reviewers and of ourselves is the financial base for operation of ISIS as opposed to its development. The group departed for a tour of the ISD facilities to see the computers and on return to see briefly the ISIS offices. In the afternoon I reviewed very briefly how the previous taxonomic directories were put together and our plans for the reptile, amphibian and fish directories. Nate then made a presentation on the studbook pedigree demography system, which was very well received, and elicited requests for portions of his techniques to be prepared in a form that might be put in the AAZPA Newsletter to allow for much wider usage. The need for maximally enhancing communications was identified at this time and many others during the day. Discussion of the physiological norms system was set aside and some time was spent discussing my role in the system and what role I would see myself taking over the next several years. I indicated a willingness to oversee direction of the system for the

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next several years and explained my general lack of participation over the past year. I then at this time summarized the needs of the ISIS program in relation to the AAZPA as I saw them. This included an analysis of how we arrived at our charging system and operating budget. There was some discussion of a variety of the peripheral charges. We pointed out that the reason for our shortage of income related to a failure of participation by many zoos who had indicated that they would participate. We had projected our dollar per mammal charge on the basis of this participation and our shortfall has stemmed primarily from this failure. We also have been faced with costs of inflation. We indicated that if the AAZPA could develop a technique for support that represented participation by all zoos, then it was our estimate that the operating budget could be met. It was identified that ISIS has no legal standing since it does not have a charter or is not incorporated and has no other legal format. We indicated that we felt that such a structuring might be of value to provide a firmer set of relationships with all interested clientele and with the housing agency, the MZG. Finally, with respect to communications and directions of the program we suggested the formation of two committees. The first, an operations committee, would be comprised primarily of individuals who work with the system in a variety of zoos and other participating organizations. The second committee would be a policy and guidance committee whose primary concern would not be with day-to-day operations, details and techniques but with policy, directions the system might take, planning and budget. The meeting was adjourned at this time and reconvened Tuesday morning at 8:00 A.M. at the MZG again.

The tour of the site Tuesday was delayed until later in the day while the business of the meeting was continued. Seal reviewed the physiological norms system briefly in terms of its history as the point of origin for the ISIS program and its current status and budgetary needs for completion. At this point a number of questions were taken up concerning pricing of various peripherals, accessories and additional services provided by ISIS including the directories, mid-year reports, special reports, etc. There was a general agreement that these were substantially underpriced and a pricing structure was suggested. (Jan, you should summarize this material from your notes so that we might include this information here.)

At this point Bob Wagner, Executive Director of the AAZPA, speaking for the review committee made the following set of proposals:

- (1) That an ISIS trust be established with legal status.
- (2) AAZPA pay the operating costs of ISIS from a dues assessment of all members. Funds from this would then be provided to

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the ISIS steering committee on an annual basis as some form of contract relationship.

- (3) An ISIS steering committee be formed which would be outside of the structure of the AAZPA. It might be the board of directors of the ISIS trust, however it might be established. It would include the following individuals: U. S. Seal as chairman, AAZPA president, AAZPA president-elect, AAZPA executive director, a USDI representative, a zoo representative, an aquarium representative, AAZV president, AAZV president-elect, IUCN representative, and a Federal marine mammals representative. This committee would be charged with all ISIS policy decisions including operating policy, development, fees and budget.
- (4) A special AAZPA operations committee be formed with the responsibility of overseeing the operation of the ISIS program. This might include Judith Block as chairman, Don Bridgwater, Jan Olsen, Dave Zucconi, Marvin Jones, Paul Linger, Allegra Hammer, Alen Schumacher, Dave Banks, Mitch Bush and Don Wilke. This committee then would give representation to zoos, aquaria, studbook keepers and others directly concerned with the operation of the ISIS program. They would be responsible for the day-to-day operation and receive overall guidance from the steering committee.

A paper on the functions of ISIS and covering the above mentioned items should be submitted within 45 days of this meeting to Robert Wagner, Executive Director of the AAZPA. This paper would serve as the basis for presentation to the AAZPA Board of Directors at a specially called meeting in January in Wheeling, West Virginia. I indicated my willingness to attend and of the dates suggested indicated that January 17-18, 1978 would be preferable for my schedule. This meeting would be held to consider membership dues.

It seems to me that the following items need to be accomplished fairly promptly.

- (1) Another meeting with the lawyer to determine the possibility of setting up some legal format such as a trust to accomplish the ISIS functions and enable it to enter into contractual relationships, etc. This would also include an initial formulation of composition of the board of directors along the lines suggested by the AAZPA for the steering committee.
- (2) We should analyze the work effects upon us of getting full participation by all AAZPA members in terms of the budgetary

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- (3) Then, we can cost out the effects of additional or continuing development and see that these are appropriately charged to the development budgets. This might entail hiring for several years an additional person to handle much of the paperwork and have the entire process still remain well within Jan's scope of control.
- (4) We need to give consideration then to contracts with other clientele; for example, zoos who do not wish to remain in the AAZPA with the altered dues structure that is taking place; other Federal agencies such as National Marine Fisheries; the USDI; zoos in other parts of the world that are not members of the AAZPA; other types of breeding and animal holding organizations; states and other political entities, etc., etc. We should identify as many of these possibilities as possible by example and give consideration to how we would handle such relationships. This would include development of a memorandum of agreement format which would have some binding force. Note here also that fees for these non-AAZPA people would have to be given consideration as separate from the fee structure or contract relationship we might have with these other organizations including the AAZPA. We would also identify the fact that a contract relationship would be sought with the AAZV once the physiological norms program becomes operational. From our current and recent experience it is clear that attempting to get individual institutions to participate should be considered an add-on to a baseline contract to meet the minimal operational costs of this system. Consideration will also need to be given to how the cost handling of the pedigree system will be managed. It deserves re-emphasis that this might be on a demand basis with charges for each demand. Will we include any part of the pedigree demography studbook system in our base operating costs of the initial contract, or will this have to be developed and negotiated separately? If so, this must be specified. The basis for re-negotiation must be specified. This will be of importance when the herpes and fish are added and would come into the general framework of criteria for identifying costs with respect to increasing workload.

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- (5) We should have a summary of the remaining development costs for the pedigree system and the physiological norms system and the additional taxonomic groups. We can omit at this time any consideration of autopsy and behavior subsystems except to note that the possibility for these subsystems exists but has not been considered in any of the cost analyses. They are development matters, not operating matters. Note that it would be worthwhile getting Nate's brief paper on inbreeding estimates before the time of this meeting so that it might be submitted for the AAZPA Newsletter. I would also like a copy of the material he provided in his documentation, which I did not receive.
- (6) We should review the impact of these proposals and the establishment of a trust or some legal format upon our relationship with the MZG and the State of Minnesota. Consideration should be given to the Board adoption of ISIS as a long-term conservation activity in a way that is legally acceptable. The exploration of this relationship needs to be undertaken as soon as and in conjunction with our effort to establish some form of legal format for ISIS.

Any other thoughts and comments you might have should perhaps be summarized so that we can put all of this into a single document for reference purposes.

Sincerely,



U. S. SEAL, Ph.D.

6 January 1978

American Association of Zoological Parks and Aquariums
Board of Directors
Oglebay Park
Wheeling, WV 26003

Dear Robert O. Wagner and AAZPA Board Members:

I would like to summarize my understanding of the agreements reached and actions to be taken as a result of the review of ISIS by the AAZPA and AAZV at the meeting of November 14 and 15 held at the Minnesota Zoological Garden. I am including a more detailed set of my notes on the meeting and my understandings as a reference document for your use.

1. An ISIS trust be established with legal status.
2. An ISIS steering committee be formed as a part of the ISIS trust which would be outside of the structure of the AAZPA. It should include the following individuals: U.S. Seal as chairman, AAZPA President, AAZPA President-elect, AAZPA Executive Director, a USDI representative, a zoo representative, an aquarium representative, AAZV President, AAZV President-elect, IUCN representative, and a Federal marine mammals representative. This committee would be charged with all ISIS policy decisions including operating policy, development, fees and budget.
3. The AAZPA enter into a contractual relationship with the trust and pay the operating costs of ISIS related to AAZPA zoos rather than continue the separate billings currently used. As part of the contractual agreement, a special AAZPA operations committee would be formed with the responsibility of overseeing the operation of the ISIS program. This might include Judith Block as chairman, Don Bridgwater, Jan Olsen, Dave Zucconi, Marvin Jones, Paul Linger, Allegra Hammer, Alan Shoemaker, David Banks, Mitch Bush and Don Wilke. This committee then would give representation to zoos, aquaria, studbook keepers and others directly concerned with the operation of the ISIS program. They would be responsible for the day-to-day operation and receive overall guidance from the steering committee.
4. Seal was requested to indicate his current and continuing relationship to the ISIS program and whether he would agree to continue direction of the system.

We are in agreement with the proposal and wish to indicate the actions being taken in preparation for the board meeting in Denver, January 17 and 18.

1. Steps have been taken to establish ISIS as a tax-exempt, non-profit corporation. Draft legal documents to this effect will shortly follow this letter. These are subject to review and revision by all parties. When a satisfactory version is achieved, and when our agreement on the financial relationship is achieved, these would be supplemented.
 - (a) The Board of Directors of the Corporation would consist of those individuals proposed as members of the steering committee, with the proviso that additional members could be appointed by the Corporation Board. I would serve as Chairman of the Board and the ISIS Systems Manager would serve as Executive Secretary to the Corporation. The Board of Directors would be responsible for overall direction of ISIS.
 - (b) The composition of the AAZPA-ISIS Operations Committee, the definition of its role and responsibilities, as well as the determination of the annual AAZPA ISIS Participation Fee be established in a contract between the AAZPA and the ISIS Corporation.
 - (c) Neither the Fiscal 1978 nor 1979 Budgets include an expense item for the legal fees which will be incurred in the incorporation of ISIS. Additional funds of approximately \$1500.00 will be required to pay these costs.
2. We are submitting detailed budgets and our estimate of the monies needed from the AAZPA to pay the operating costs of ISIS related to the AAZPA zoos. It should be emphasized that development costs are separate.
3. I personally wish to reemphasize my willingness to oversee direction of ISIS for the next three to five years. I will affirm this relationship in several of the legal documents as well. I trust that, with the proposal here described as the basis of our discussions, we will be able to arrive at a satisfactory agreement at the upcoming Special Board Meeting in Denver.

Sincerely,

U.S. Seal, Ph.D.

USS/lp

Enclosure

AAZPA - ISIS Site Visit

14 - 15 November, 1977

AGENDA

Transportation between the Marriott Inn and the Minnesota Zoological Garden site will be made available by the Minnesota Zoological Garden.

Unless otherwise indicated, all sessions will be in the Minnesota Zoological Garden Board Room.

Monday 14 November

7:30 a.m. Transportation from the Marriott Inn to the MZG Site will be available.

The morning sessions will both review the design and development of the International Species Inventory System to date and examine all aspects of the currently operating inventory system.

8:00 - 8:30 a.m. Historical Review Donald D. Bridgwater

8:30 - 9:30 ISIS Systems Design Dale G. Makey, PhD.

9:30 - 9:45 Break

9:45 - 10:15 ISIS Policy Making Procedures Donald D. Bridgwater

10:15 - 11:45 ISIS Operations Janice M. Olsen

This is an unstructured session designed to cover all aspects of ISIS operations. Content and emphasis can be varied at the request of the committee.

Finances: review of operating expenses; review of income including indirect support; review of Participation Fees, directory sales, special report fees; proposals for adjustment of current fee schedules.

Participants: who are they, what support do they provide, what support should they provide, what services are available to them, what data is available to whom?

ISIS Organization

Data Processing Procedures

Please contact me if additional topics should be included so I can be certain to have any relevant data readily available.

A sandwich lunch will be available during this session.

Monday 14 November continued

- 12:00 Tour of ISIS Facilities
- 12:45 p.m. Departure for ISD Tour
- 1:15 - 2:00 Tour of Information Systems Division, Department of Administration, State of Minnesota John Schwartz, Assistant Director, Systems and Programming.
- 2:30 Return to Minnesota Zoological Garden site.

The afternoon session will examine the various systems currently under development by ISIS. In each case, there will be a review of project background; nature of commitment from all involved parties; costs incurred to date and projected; development schedule; current project status; projections as to the effect of the completed project on ISIS operations; availability of data at what costs, to whom; staff requirements for ongoing operation of system.

- 2:45 - 3:00 Taxonomic Directories U.S. Seal, PhD.
- 3:00 - 4:00 Studbook/Pedigree/Demography System Nate Flesness
- 4:00 Physiological Norms System U.S. Seal, PhD., Paul Scobie

The agenda for the remainder of the evening is flexible. All those giving presentations during the day will be available for further discussion of all aspects of ISIS operations. If desired, an AAZPA Executive Session can be scheduled at this time.

Return transportation to the Marriott Inn will be available.

Tuesday, 15 November

- 7:30 a.m. Transportation from the Marriott In to the MZG site will be available.
- 8:00 Tour of Minnesota Zoological Garden site Donald D. Bridgwater
- 10:00 Review Session
Systems Design, current operations, and project development will be reviewed as requested. Any topics not adequately covered in earlier sessions can be further discussed.

Projections as to the effects of increased participation, increased number of inventory specimens, studbook programs will be discussed.

Proposals for ISIS future operations will be presented.

Proposals for AAZPA - ISIS relationships will be presented.

Tuesday 15 November continued

- 12:00 Lunch on site. An AAZPA Executive Session can be scheduled if desired.
- 1:00 p.m. Planning and Policy making session
- 4:00 Transportation to the airport will be provided for those departing on early evening flights

MINUTES OF THE AAZPA & ISIS PRINCIPLES
MINNESOTA ZOOLOGICAL GARDEN
Apple Valley, Minnesota
November 14-15, 1977

During the time immediately preceding the AAZPA Board of Directors meeting in San Diego, Don Bridgwater, Don Farst, Dennis Meritt and Bob Wagner determined that a meeting to discuss the future of ISIS was essential, and a tentative plan was set in motion to conduct such meeting as soon after the Board of Directors meeting as was possible. It was the concensus of opinion that such meeting should be held in the Minnesota Zoological Garden. During the Board of Directors meeting in San Diego, it was unanimously approved that the meeting should take place; and the following persons were asked to participate: William Meeker, Dennis Meritt, Robert Wagner, Don Farst, Edward Maruska, Don Bridgwater, U. S. Seal and Janice Olsen. It was later determined (and an earlier oversight) that there should also be a representative from AAZV in attendance. Bob Temple, AAZV President, was selected to represent AAZV.

All participants were hosted by Don Bridgwater and his wife on Sunday evening. Mrs. Seal and Kent Kane, D.V.M., Staff Veterinarian of the Minnesota Zoological Garden, joined us for dinner.

The actual meeting began on Monday morning, November 14 and was conducted in the Board Meeting Room at the Minnesota Zoological Garden. Ms. Kim Hastings, keypunch operator for the ISIS Systems, and Dale G. Makey, Ph.D., joined us for the initial session. Janice Olsen acted as chairperson. Don Bridgwater began the meeting with a historic review of the ISIS program and detailed the early support given the ISIS program by the Sams Foundation, Frankel Foundation, AAZV, AAZPA and others. Don reiterated the commitment that was made to the program by the Board of Directors of the Minnesota Zoological Garden and advised us of their continuing support.

Dr. Makey detailed the rationale for the ISIS Systems design and discussed his interest in the physiological norms. The early design of the computer program has allowed for the continued programing to be reasonably wide in scope and has enabled the addition of new programs and new areas of interest. Dr. Makey discussed the rationale for the use of two computers; the University of Minnesota computers and the computers at the state of Minnesota. He explained that the state of Minnesota computers allowed a greater flexibility than the systems available at the University of Minnesota, but he stated that the University of Minnesota systems was selected for specialized work because of the availability of expertise at the University in working on such scientific programs as the physiological norms.

Don Bridgwater then discussed the ISIS policy-making procedures. He again explained that all funds received by ISIS are handled through the state of Minnesota's Finance Department and are thus subject to all control procedures of the state. All such funds are deposited in nonreverting accounts and are not subject to being absorbed in normal budgetary processes.

Janice Olsen reported on ISIS operations and presented tabulated reports detailing the projected operating expenses, a review of income including indirect support, a review of participation fees, directory sales, special report fees and her proposals for adjustments to the current fee schedule. Much discussion followed, and many tentative suggestions were made regarding increased fees for ISIS quarterly reports and other special reports desired by participating members. Moreover, there were recommendations made by AAZPA members present to substantially increase the sales of ISIS materials to individuals other than participants of ISIS, AAZPA members and AAZV members. Janice was requested to review these potential increases in relation to projected income for the next year. A discussion followed regarding the rationale for ISIS charging \$1.00 for mammal entries and but 35¢ for birds. It was determined that it requires as much time and effort to enter Avian species as it does Mammalian species into the System. Janice was requested to determine the increased income projections if it was determined to charge \$1.00 per bird in the same fashion that is being charged for mammals.

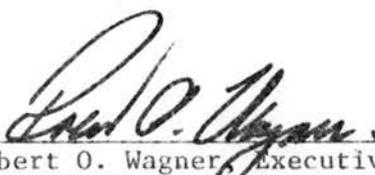
We toured the ISIS facilities at the Minnesota Zoological Garden and the Information Systems Division Department of Administration, State of Minnesota. The remainder of the afternoon was spent examining the various systems currently being developed by ISIS. Dr. Seal discussed the taxonomic directory in detail. This was followed by an in-depth review by Nate Flesness of the work being done on studbooks, pedigree analysis and the demography systems.

That evening, AAZPA representatives and Robert Temple met to discuss recommendations for the continuation of the ISIS Systems and its financial future.

The following morning, we returned to the Minnesota Zoological Garden Board Meeting Room and heard a report from Dr. Seal relative to the physiological norms program. Dr. Seal advised that it would cost an estimated \$8,000 to complete the work of the Physiological Norms System and that \$3,000 - \$5,000 would be required per year for the operation of the system. It was reported that the user fees would most likely take care of these annual operating expenses. He further reported that if the \$8,000 was available, it would require approximately six months to complete programming for the Physiological Norms System.

Dr. Seal was then asked to present proposals for the future ISIS operations and a proposed working relationship between AAZPA and ISIS. Dr. Seal responded by requesting consideration for the establishment of an AAZPA/ISIS Committee. At this point, Bob Wagner presented the following proposals: 1) AAZPA proposes that a Trust for ISIS be established to receive contributions and grants. 2) AAZPA proposes that an ISIS "Steering Committee" be established that would operate outside and totally separate from AAZPA. This "Steering Committee" would be comprised of the following persons: U. S. Seal, Chairman; AAZPA President; AAZPA Executive Director; AAZPA President-Elect; a representative from USDI; AAZPA's IUCN representative; a representative from the Marine Mammal Commission or the National Marine Fisheries Service; AAZV President; AAZV President-Elect; a zoo representative and an aquarium representative. This committee would be charged with the responsibility of all ISIS policy decisions as they relate to the development, future planning and the fee structures. 3) AAZPA further proposes that an AAZPA Special Committee be established and charged with the responsibility for the day-to-day operation of the ISIS Systems program. This committee would be comprised of the following persons: Judith Block, Chairman; Don Bridgwater; Janice Olsen; Dave Zucconi; Marvin Jones; Paul Linger; Allegra Hammer; Alan Shoemaker; David Banks; R. Mitchell Bush, D.V.M., and Don Wilkie. This committee would be charged with the responsibility of operating the ISIS Systems and would take guidance from the "Steering Committee."

Bob Wagner advised that the AAZPA requested that Dr. Seal and Don Bridgwater draw up such proposals and submit them to the AAZPA Board of Directors prior to January 1, 1978. Wagner further advised that President Meeker was in the process of calling a special AAZPA Board of Directors meeting to be held in Denver, Colorado on the 17th and 18th of January and that AAZPA was requesting Dr. Seal to be in attendance at such meeting. It was urged that the above-mentioned proposals be in the hands of the AAZPA Board of Director members sufficiently early to provide them the opportunity for a detailed review. President Meeker advised that two matters of major concern would be discussed during the course of the special Board meeting: ISIS and the AAZPA Special Education and Information Fund.


Robert O. Wagner, Executive Director

Copies to: AAZPA Board of Directors
Don Bridgwater
U. S. Seal, Ph.D.
Janice Olsen
Robert Temple, D.V.M.



December 15, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. Philip W. Getts
Dayton, Herman & Graham, Attorneys at Law
800 Midland Bank Building
Minneapolis, Minnesota 55401

Dear Phil:

Enclosed is a copy of a minutes summary resulting from the recent meeting with the AAZPA Board, Dr. Seal and myself, etc.

Basically we need to set up the guidelines to establish a trust which would receive monies and distribute them and manage ISIS based on the series of committees noted in the report.

After you review this, give me a call, as we would like to set up a meeting to get on with the proposal. Payment will depend upon future structure and may take some time, but if you feel it worthwhile we would sure appreciate you handling it.

Best regards,

Donald D. Bridgwater
General Director

Enclosure

DDB/pc



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number to be negotiated. It again would seem to me that given the basic operating costs as currently outlined, the concern then becomes how many additional forms can be handled within the scope of the present operating budget if all developmental costs are removed from the responsibility of this particular staff?

- (3) Then, we can cost out the effects of additional or continuing development and see that these are appropriately charged to the development budgets. This might entail hiring for several years an additional person to handle much of the paperwork and have the entire process still remain well within Jan's scope of control.
- (4) We need to give consideration then to contracts with other clientele; for example, zoos who do not wish to remain in the AAZPA with the altered dues structure that is taking place; other Federal agencies such as National Marine Fisheries; the USDI; zoos in other parts of the world that are not members of the AAZPA; other types of breeding and animal holding organizations; states and other political entities, etc., etc. We should identify as many of these possibilities as possible by example and give consideration to how we would handle such relationships. This would include development of a memorandum of agreement format which would have some binding force. Note here also that fees for these non-AAZPA people would have to be given consideration as separate from the fee structure or contract relationship we might have with these other organizations including the AAZPA. We would also identify the fact that a contract relationship would be sought with the AAZV once the physiological norms program becomes operational. From our current and recent experience it is clear that attempting to get individual institutions to participate should be considered an add-on to a baseline contract to meet the minimal operational costs of this system. Consideration will also need to be given to how the cost handling of the pedigree system will be managed. It deserves re-emphasis that this might be on a demand basis with charges for each demand. Will we include any part of the pedigree demography studbook system in our base operating costs of the initial contract, or will this have to be developed and negotiated separately? If so, this must be specified. The basis for re-negotiation must be specified. This will be of importance when the herpes and fish are added and would come into the general framework of criteria for identifying costs with respect to increasing workload.

Jan Olsen and Don Bridgwater
Minnesota Zoological Garden
Apple Valley, MN 55124

December 5, 1977

- (5) We should have a summary of the remaining development costs for the pedigree system and the physiological norms system and the additional taxonomic groups. We can omit at this time any consideration of autopsy and behavior subsystems except to note that the possibility for these subsystems exists but has not been considered in any of the cost analyses. They are development matters, not operating matters. Note that it would be worthwhile getting Nate's brief paper on inbreeding estimates before the time of this meeting so that it might be submitted for the AAZPA Newsletter. I would also like a copy of the material he provided in his documentation, which I did not receive.
- (6) We should review the impact of these proposals and the establishment of a trust or some legal format upon our relationship with the MZG and the State of Minnesota. Consideration should be given to the Board adoption of ISIS as a long-term conservation activity in a way that is legally acceptable. The exploration of this relationship needs to be undertaken as soon as and in conjunction with our effort to establish some form of legal format for ISIS.

Any other thoughts and comments you might have should perhaps be summarized so that we can put all of this into a single document for reference purposes.

Sincerely,



U. S. SEAL, Ph.D.



November 17, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. Philip W. Getts
Dayton, Herman & Graham, Attorneys at law
800 Midland Bank Building
Minneapolis, Minnesota 55401

Dear Phil:

First, thanks for the ISIS assistance.

All top management of the AAZPA spent two days this week with us here, and within the next forty-five days will put together a working proposal for the ISIS function. It is unclear whether the national organization's legal people will do it or whether we do it.

As soon as this is together I will give you a call and we will decide where to go from there. The general idea is to create an ISIS trust independent of AAZPA, establish a mandatory fee-budget tuition with all participating Zoos, establish two levels of management under the trust long term planning, and direct operations and the contract between the trust and the Minnesota Zoological Garden under operating the program. It was all very tentative but positive. Questions about copyright would be part of the proposal.

In any event, I will touch base with you within the next month. Thanks again.

Best regards,

Donald D. Bridgwater
General Director

cc: U. S. Seal, PhD

DDB/pc

dayton, herman & graham attorneys at law

800 Midland Bank Building Minneapolis MN 55401

Charles K. Dayton/John H. Herman/Kathleen M. Graham/Philip W. Getts/James A. Payne

(612) 339-7633

November 14, 1977

Mr. Don Bridgewater
Director
Minnesota Zoological Garden
Apple Valley, MN 55124

Re: International Species Inventory System,
Our File No. 570

Dear Don:

I have reviewed the copyright laws concerning the copyrightability of computer programs. The copyright law was extensively revised by the Copyright Act of 1976, and it is now beyond question that computer programs are subject to copyright, provided they satisfy other attributes of copyrightable material. Therefore, the program for the ISIS system can be copyrighted by its authors. Moreover, that copyright, with the exclusive right to use it, can be assigned by the authors to any other entity, including a non-profit corporation.

The mechanics for obtaining a copyright are not complex. The copyrighted material must bear the familiar C in a circle, the year of copyright, and name of the copyright owner. The copyright is to be deposited with the Register of Copyrights, the copyright itself must be registered at the same office. A recording fee of \$10.00 is required.

Thus, all our general questions are answered in the affirmative. The program may be copyrighted; the procedures are not complex; and the copyright may be assigned to a non-profit corporation. Before applying for the copyright, however, a number of specifics remain. The authors should be clearly identified, and any person whose name appears upon ISIS materials, e.g., Linda Murtfeldt, should sign written waivers of any rights to the copyrighted material. More importantly, you should identify specifically the materials to be copyrighted. You may wish, for example, to copyright the explanatory material, as well as the program itself.

Mr. Don Bridgewater
November 14, 1977
Page 2

In addition to copyrighting the computer program and certain texts which accompany it, you will undoubtedly wish to register the ISIS logo and the name itself. These procedures are not complex but should be taken in order to completely protect the ISIS system.

I will await your instructions concerning incorporation and other matters which we discussed.

If you have any questions, please call.

Sincerely,

Philip W. Getts
Philip W. Getts

PWG:jab



Mr. Don Bridgewater
Director
Minnesota Zoological Garden
Apple Valley, MN 55124

dayton, herman & graham

attorneys at law / 800 Midland Bank Building Minneapolis MN 55401



chicago park district

LESTER E. FISHER, D.V.M., Director
LINCOLN PARK ZOOLOGICAL GARDENS
2200 N. CANNON DRIVE, CHICAGO, ILLINOIS 60614
Phone: 294-4660

November 22, 1977

Mr. Don Bridgwater
Executive Director
Minnesota Zoological Gardens
12101 Johnny Cake Road
Apple Valley, Minnesota 55124

Dear Don:

As a follow-up to our telephone conversation of 17 November please accept my personal thanks for your hospitality during our visit.

You are to be congratulated for your own efforts as well as those of your fine staff. Your new facility is most impressive and will no doubt serve as a model for others.

I am personally grateful for all the time and attention shown by Brad, Ralph, Jan, Kim and others during our brief stay. Please extend to each of them my thoughts.

Regards and personal best wishes.

Sincerely,

Dennis

D. A. Meritt Jr.
Assistant Director

DAM:sd

*CC Jan Olsen
I 575*





American Association of Zoological Parks and Aquariums

EXECUTIVE OFFICES AT OGLEBAY PARK, WHEELING, W. VA. 26003 AREA CODE 304 - 242-2160

November 21, 1977

Lawrence Curtis
Oklahoma City Zoo
Rt. 1, Box 1
Oklahoma City, OK 73111

Dear Larry:

Thank you very much for your letter regarding ISIS and the obvious time spent by you and your staff in preparing the comments.

We had an excellent meeting in Minnesota. Very fruitful, frank discussions took place and the resolution of ISIS/AAZPA is, I feel, at last at hand.

You will notice in the next issue of Newsletter an announcement of a special Board meeting called by me for January 17 & 18. The entire thrust of the meeting will be to finalize working relationships and funding responsibilities for S.E.I.F. and I.S.I.S. Also, please notice that I am asking for input on both subjects from the membership. Therefore, please copy the entire Board with your letter and comments so that we all will be able to evaluate these in the light of the upcoming meeting.

Until then, therefore, I am "begging off" answering your specific questions hoping that our final resolution will satisfy most of them. I think it will.

Sincerely,

WILLIAM E. MEEKER
President
A.A.Z.P.A.

WEM/vl

c.c. to: Wagner, Maruska, Farst, Temple, Bridgwater,
Olson, Seal

President
WILLIAM E. MEEKER
Director
Sacramento Zoo
Sacramento, California 95822

President-Elect
EDWARD J. MARUSKA
Director
Cincinnati Zoo
Cincinnati, Ohio 45220

Vice-President
DON D. FARST, D.V.M.
Director
Gladys Porter Zoo
Brownsville, Texas 78520

Past President
GORDON HUBBELL, D.V.M.
Director
Crandon Park Zoo
Key Biscayne, Florida 33149

Executive Director
ROBERT O. WAGNER
Oglebay Park
Wheeling, West Virginia 26003

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PAUL N. LINGER, JR.
Assistant Director
Denver Zoological Gardens
Denver, Colorado 80205

DENNIS A. MERITT, JR.
Assistant Director
Lincoln Park Zoological Gardens
Chicago, Illinois 60614

CHARLES H. HOESSELE
Deputy Director
St. Louis Zoological Park
St. Louis, Missouri 63110

SAUL L. KITCHENER
Director
San Francisco Zoological Gardens
San Francisco, California 94132

PAUL S. CHAFFEE, D.V.M.
Director
Roeding Park Zoo
Fresno, California 93728

ROLAND LINDEMANN
President
Catskill Game Farm, Inc.
Catskill, New York 12414

CITY OF SACRAMENTO
DEPARTMENT OF RECREATION AND PARKS
3520 FIFTH AVENUE SACRAMENTO, CALIFORNIA 95817
TELEPHONE (916) 452-5681

LEARN
NOT TO
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DONALD D. BRIDGWATER
MINNESOTA STATE ZOOLOGICAL GARDEN
12101 JOHNNY CAKE ROAD
APPLE VALLEY, MINNESOTA 55124

DEPARTMENT MZG *Office Memorandum*

TO : Security Staff, Reception Area

DATE: November 14, 1977

FROM : Donald Bridgwater

PHONE: _____

SUBJECT: ISIS Meetings

On Monday and Tuesday of this week, the following guests will be attending a meeting (ISIS conference) to be held in the Board room.

Please extend appropriate courtesies. The individuals attending are as follows:

Bill Meeker - Director of Sacramento Zoo
President of AAZPA

Bob Wagner - Executive Director - AAZPA
Wheeling, West Virginia

Dennis Meritt Jr. - Assistant Director
Lincoln Park Zoological Gardens

Ed Maruska - Director of Cincinnati Zoo
President-Elect AAZPA

Dr. Don Farst, D.V.M. - Director of Gladys Porter Zoo
Brownsville, Texas
Vice-President AAZPA

Dr. Robert Temple - President AAZV

Thank you.



November 17, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. William E. Meeker
President
American Association of Zoological Parks and Aquariums
Sacramento Zoo
Sacramento, California 95822

Dear Bill:

Just a note to thank you for spending time with regard to the ISIS program.

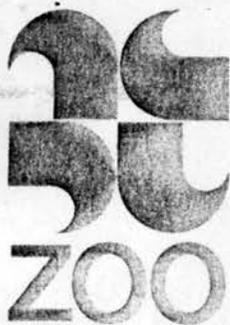
It was also a pleasure having you in Minnesota and at the Minnesota Zoological Garden. I am most confident that the tentative proposals suggested will work and it will indeed be successful. Our commitment is intense, yet the time pressure and tentative relationships have been difficult ones. I believe the "light is in sight at the end of the tunnel" and do appreciate your assistance.

Best regards,

Donald D. Bridgwater
General Director

DDB/pc

cc: Jan Olsen



MINNESOTA ZOOLOGICAL GARDEN

November 18, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. Robert O. Wagner
Executive Director
American Association of Zoological Parks and Aquariums
Oglebay Park
Wheeling, West Virginia 26003

Dear Bob:

Just a note to thank you for spending time with regard to the ISIS program.

It was also a pleasure having you in Minnesota and at the Minnesota Zoological Garden. I am most confident that the tentative proposals suggested will work and it will indeed be successful. Our commitment is intense, yet the time pressure and tentative relationships have been difficult ones. I believe the "light is in sight at the end of the tunnel" and do appreciate your assistance.

Best regards,

Donald D. Bridgwater
General Director

ODB/pc



November 18, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. Dennis A. Meritt, Jr.
Assistant Director
Lincoln Park Zoological Gardens
2200 North Cannon Drive
Chicago, Illinois 60614

Dear Dennis:

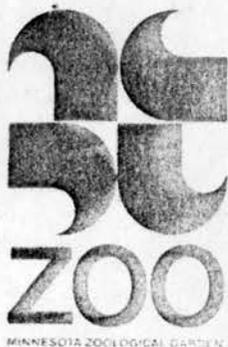
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Best regards,


Donald D. Bridgwater
General Director

DDB/pc



November 18, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. Edward J. Maruska
Director
Zoological Society of Cincinnati
3400 Vine Street
Cincinnati, Ohio 45220

Dear Ed:

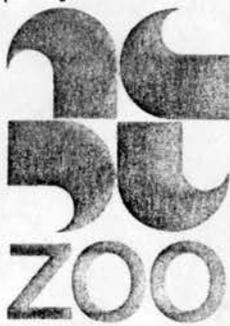
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Best regards,

Donald D. Bridgwater
General Director

DDB/pc



MINNESOTA ZOOLOGICAL GARDEN

November 18, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. Don D. Farst, D.V.M.
Director
Gladys Porter Zoo
500 Ringgold Street
Brownsville, Texas 78520

Dear Don:

Just a note to thank you for spending time with regard to the ISIS program.

It was also a pleasure having you in Minnesota and at the Minnesota Zoological Garden. I am most confident that the tentative proposals suggested will work and it will indeed be successful. Our commitment is intense, yet the time pressure and tentative relationships have been difficult ones. I believe the "light is in sight at the end of the tunnel" and do appreciate your assistance.

Best regards,

Donald D. Bridgwater
General Director

DDB/pc



MINNESOTA ZOOLOGICAL GARDEN

November 18, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Dr. Robert Temple, D.V.M.
Sea World of Ohio, Inc.
1100 Sea World Drive
Aurora, Ohio 44202

Dear Bob:

Just a note to thank you for spending time with regard to the ISIS program.

It was also a pleasure having you in Minnesota and at the Minnesota Zoological Garden. I am most confident that the tentative proposals suggested will work and it will indeed be successful. Our commitment is intense, yet the time pressure and tentative relationships have been difficult ones. I believe the "light is in sight at the end of the tunnel" and do appreciate your assistance.

Best regards,

Donald D. Bridgwater
General Director

DDB/pc



American Association of Zoological Parks and Aquariums

EXECUTIVE OFFICES AT OGLEBAY PARK, WHEELING, W. VA. 26003 AREA CODE 304 - 242-2160

AAZPA - WILDLIFE CONSERVATION AND MANAGEMENT COMMITTEE

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Dennis A. Meritt, Jr.
Lincoln Park Zoological Gardens
2200 N. Cannon Drive
Chicago, Illinois 60614
312 - 294-4660 or 4667

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Director
Sacramento Zoo
Sacramento, California 95822

VICE-CHAIRMAN:

Clayton Freiheit (Birds)
Denver Zoological Gardens
City Park
Denver, Colorado 80205
303 - 297-2432

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Cincinnati, Ohio 45220

Vice-President
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Director
Gladys Porter Zoo
Brownsville, Texas 78520

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Forest Park
St. Louis, Missouri 63110
314 - 781-0900

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Director
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Key Biscayne, Florida 33149

Executive Director
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Oglebay Park
Wheeling, West Virginia 26003

Kevin Bowler (Reptiles and Amphibians)
Philadelphia Zoological Garden
34th St. and Girard Avenue
Philadelphia, Pennsylvania 19104
215 - 243-1100

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Denver Zoological Gardens
Denver, Colorado 80205

Harvey Fischer (Reptiles and Amphibians)
Los Angeles Zoo
5333 Zoo Drive
Los Angeles, California 90027
213 - 666-4650

DENNIS A. MERITT, JR.
Assistant Director
Lincoln Park Zoological Gardens
Chicago, Illinois 60614

CHARLES H. HOESSLE
Deputy Director
St. Louis Zoological Park
St. Louis, Missouri 63110

Edward Maruska (Felids)
Cincinnati Zoo
3400 Vine Street
Cincinnati, Ohio 45220
513 - 281-4700

SAUL L. KITCHENER
Director
San Francisco Zoological Gardens
San Francisco, California 94132

PAUL S. CHAFFEE, D.V.M.
Director
Roeding Park Zoo
Fresno, California 93728

Lester E. Fisher, D.V.M. (Canids)
Lincoln Park Zoological Gardens
2200 N. Cannon Drive
Chicago, Illinois 60614
312 - 294-4660 or 4665

ROLAND LINDEMANN
President
Catskill Game Farm, Inc.
Catskill, New York 12414



American Association of Zoological Parks and Aquariums

EXECUTIVE OFFICES AT OGLEBAY PARK, WHEELING, W. VA. 26003 AREA CODE 304 - 242-2160

AAZPA - WILDLIFE CONSERVATION AND MANAGEMENT COMMITTEE

Page #2

MEMBERS:

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WILLIAM E. MEEKER
Director
Sacramento Zoo
Sacramento, California 95822

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EDWARD J. MARUSKA
Director
Cincinnati Zoo
Cincinnati, Ohio 45220

Vice-President
DON D. FARST, D.V.M.
Director
Gladys Porter Zoo
Brownsville, Texas 78520

Past President
GORDON HUBBELL, D.V.M.
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Crandon Park Zoo
Key Biscayne, Florida 33149

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Oglebay Park
Wheeling, West Virginia 26003

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Denver, Colorado 80205

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Lincoln Park Zoological Gardens
Chicago, Illinois 60614

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St. Louis Zoological Park
St. Louis, Missouri 63110

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Director
San Francisco Zoological Gardens
San Francisco, California 94132

PAUL S. CHAFFEE, D.V.M.
Director
Roeding Park Zoo
Fresno, California 93728

ROLAND LINDEMANN
President
Catskill Game Farm, Inc.
Catskill, New York 12414

Saul L. Kitchener (Primates)
San Francisco Zoological Gardens
Zoo Road and Skyline Boulevard
San Francisco, California 94132
415 - 558-4461

N. B. Gale, D.V.M. (Mammals)
P. O. Box 973
Balboa, Canal Zone

William Xanten (Small Mammals)
National Zoological Park
Washington, D.C. 20008
202 - 381-7283 or 7228

Lanny Cornell, D.V.M. (Marine Mammals)
Sea World
1720 South Shore Road
Mission Bay
San Diego, California 92109
714 - 222-6363

Edward Asper (Marine Mammals)
Sea World
7007 Sea World Drive
Orlando, Florida 32809
305 - 351-3600

Don Bridgwater (ISIS Representative)
Minnesota State Zoological Gardens
12102 Johnny Cake Road
Apple Valley, Minnesota 55124
612 - 432-9000

Alan Shoemaker (Studbook Coordinator)
Columbia Zoological Park
P. O. Box 1143
Columbia, South Carolina 29202
803 - 779-8717

Charles Clift (Zoo Coding Representative)
208 Sunhill Terrace
Syracuse, New York 13207
315 - 472-0413

A nonprofit, tax-exempt organization dedicated to the advancement of zoological parks and aquariums for conservation, education, scientific studies, and recreation.



November 2, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. William E. Meeker
President
American Association of Zoological Parks and Aquariums
Sacramento Zoo
Sacramento, California 95822

Dear Bill:

Thank you for your letter. Reservations have been made for you at the Marriott Inn for November 13th and 14th. The Marriott is located at 494 and Cedar Avenue in Bloomington, and the telephone number is (612) 854-7441. I understand that you will arrive at 5:10 p.m. on November 13th. There is a complimentary limousine running every 15 minutes from the Airport to the Marriott, or it is also a short inexpensive cab ride. Rates at the Marriott are \$31.00 per night.

We will again confirm the reservations as time goes along.

Plans are to have dinner together at the motel on Sunday evening. An agenda will follow detailing activities for the visit here.

I am looking forward to a profitable meeting.

Best regards,

Donald D. Bridgwater
General Director

cc: Jan Olsen, ISIS

DDB/pc



MINNESOTA ZOOLOGICAL GARDEN

November 2, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. Edward J. Maruska
Director
Zoological Society of Cincinnati
3400 Vine Street
Cincinnati, Ohio 45220

Dear Ed:

Thank you for your letter. Reservations have been made for you at the Marriott Inn for November 13th and 14th. The Marriott is located at 494 and Cedar Avenue in Bloomington, and the telephone number is (612) 854-7441. I understand that you will arrive at 3:30 p.m. on November 13th. I will be at the Airport to meet you. Rates at the Marriott are \$31.00 per night.

We will again confirm the reservations as time goes along.

Plans are to have dinner together at the motel on Sunday evening. An agenda will follow detailing activities for the visit here.

I am looking forward to a profitable meeting.

Best regards,

Donald D. Bridgwater
General Director

cc: Jan Olsen, ISIS

DDB/pc



MINNESOTA ZOOLOGICAL GARDEN

November 2, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. Robert O. Wagner
Executive Director
American Association of Zoological Parks and Aquariums
Oglebay Park
Wheeling, West Virginia 26003

Dear Bob:

Thank you for your letter. Reservations have been made for you at the Marriott Inn for November 13th and 14th. The Marriott is located at 494 and Cedar Avenue in Bloomington, and the telephone number is (612) 854-7441. I understand that you will arrive at 5:04 p.m. on November 13th. There is a complimentary limousine running every 15 minutes from the Airport to the Marriott, or it is also a short inexpensive cab ride. Rates at the Marriott are \$31.00 per night.

We will again confirm the reservations as time goes along.

Plans are to have dinner together at the motel on Sunday evening. An agenda will follow detailing activities for the visit here.

I am looking forward to a profitable meeting.

Best regards,

Donald D. Bridgwater
General Director

cc: Jan Olsen, ISIS

DDB/pc



November 2, 1977

12101 Johnny Cake Ridge Road
Apple Valley, MN 55124
612/432-9000

Mr. Dennis A. Meritt, Jr.
Assistant Director
Lincoln Park Zoological Gardens
2200 North Cannon Drive
Chicago, Illinois 60614

Dear Dennis:

Thank you for your letter. Reservations have been made for you at the Marriott Inn for November 13th and 14th. The Marriott is located at 494 and Cedar Avenue in Bloomington, and the telephone number is (612) 854-7441. I understand that you will arrive at 5:04 p.m. on November 13th. There is a complimentary limousine running every 15 minutes from the Airport to the Marriott, or it is also a short inexpensive cab ride. Rates at the Marriott are \$31.00 per night.

We will again confirm the reservations as time goes along.

Also, we will find some time to assist or reduce your frustrations as a Cetacean observer.

Plans are to have dinner together at the motel on Sunday evening. An agenda will follow detailing activities for the visit here.

With best regards,

Donald D. Bridgwater
General Director

DDB/pc

cc: Jan Olsen, ISIS



Minnesota Zoological Garden
12101 Johnny Cake Ridge Road
Apple Valley, Minnesota 55124
Telephone (612) 432-9000

A Program of the American Association
of Zoological Parks and Aquariums

7 November 1977

MEMORANDUM

TO: AAZPA - ISIS Site Visit Committee

Dennis A. Meritt Jr.
Robert O. Wagner
William E. Meeker
Don. D. Farst
Edward J. Maruska
Robert Temple

FROM: Janice M. Olsen, System Manager, ISIS. *jmo*

SUBJECT: AAZPA Site Visit, November 13-15, 1977

Hotel accommodations have been reserved for all AAZPA guests at the Bloomington Marriott Inn, 1919 East 78th St. at Cedar Ave, Bloomington, Minnesota 55420, phone (612) 854-7441. Rooms are being held for the nights of November 13 and 14 for Messrs. Wagner, Merritt, Maruska and Meeker. Although confirmation of attendance has not been received from Drs. Farst and Temple, rooms are being held for the nights of November 13 through 15. It is our understanding that each individual will be responsible for settling his own account upon check out. The Marriott Inn provides complementary limousine service from the airport every fifteen minutes.

Dinner reservations have been made for 8:00 p.m. in The Exchange at the Marriott Inn. Don Bridgwater, U.S. Seal, Dale Makey and Jan Olsen will join you for dinner.

Enclosed please find an agenda for the two day meeting. Please contact me if there are any additional topics which you feel should be included.

We look forward to an informative and productive meeting.

JMO/lp

cc: D.D. Bridgwater, U.S. Seal, D.G. Makey, N. Flesness, P. Scobie
Enclosure: Agenda

AAZPA - ISIS Site Visit

14 - 15 November, 1977

AGENDA

Transportation between the Marriott Inn and the Minnesota Zoological Garden site will be made available by the Minnesota Zoological Garden.

Unless otherwise indicated, all sessions will be in the Minnesota Zoological Garden Board Room.

Monday 14 November

7:30 a.m. Transportation from the Marriott Inn to the MZG Site will be available.

The morning sessions will both review the design and development of the International Species Inventory System to date and examine all aspects of the currently operating inventory system.

8:00 - 8:30 a.m. Historical Review Donald D. Bridgwater

8:30 - 9:30 ISIS Systems Design Dale G. Makey, PhD.

9:30 - 9:45 Break

9:45 - 10:15 ISIS Policy Making Procedures Donald D. Bridgwater

10:15 - 11:45 ISIS Operations Janice M. Olsen

This is an unstructured session designed to cover all aspects of ISIS operations. Content and emphasis can be varied at the request of the committee.

Finances: review of operating expenses; review of income including indirect support; review of Participation Fees, directory sales, special report fees; proposals for adjustment of current fee schedules.

Participants: who are they, what support do they provide, what support should they provide, what services are available to them, what data is available to whom?

ISIS Organization

Data Processing Procedures

Please contact me if additional topics should be included so I can be certain to have any relevant data readily available.

A sandwich lunch will be available during this session.

Monday 14 November continued

- 12:00 Tour of ISIS Facilities
- 12:45 p.m. Departure for ISD Tour
- 1:15 - 2:00 Tour of Information Systems Division, Department of Administration, State of Minnesota John Schwartz, Assistant Director, Systems and Programming.
- 2:30 Return to Minnesota Zoological Garden site.

The afternoon session will examine the various systems currently under development by ISIS. In each case, there will be a review of project background; nature of commitment from all involved parties; costs incurred to date and projected; development schedule; current project status; projections as to the effect of the completed project on ISIS operations; availability of data at what costs, to whom; staff requirements for ongoing operation of system.

- 2:45 - 3:00 Taxonomic Directories U.S. Seal, PhD.
- 3:00 - 4:00 Studbook/Pedigree/Demography System Nate Flesness
- 4:00 Physiological Norms System U.S. Seal, PhD., Paul Scobie

The agenda for the remainder of the evening is flexible. All those giving presentations during the day will be available for further discussion of all aspects of ISIS operations. If desired, an AAZPA Executive Session can be scheduled at this time.

Return transportation to the Marriott Inn will be available.

Tuesday, 15 November

- 7:30 a.m. Transportation from the Marriott In to the MZG site will be available.
- 8:00 Tour of Minnesota Zoological Garden site Donald D. Bridgwater
- 10:00 Review Session
Systems Design, current operations, and project development will be reviewed as requested. Any topics not adequately covered in earlier sessions can be further discussed.
- Projections as to the effects of increased participation, increased number of inventory specimens, studbook programs will be discussed.
- Proposals for ISIS future operations will be presented.
- Proposals for AAZPA - ISIS relationships will be presented.

Tuesday 15 November continued

- 12:00 Lunch on site. An AAZPA Executive Session can be scheduled if desired.
- 1:00 p.m. Planning and Policy making session
- 4:00 Transportation to the airport will be provided for those departing on early evening flights

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AN EVALUATION OF ISIS BY THE OKLAHOMA CITY ZOO

Introduction:

The Oklahoma City Zoo has evaluated costs and benefits of ISIS, especially with reference to future participation and funding from this institution. However, we believe that our observations, experiences, and opinions can be extended to other zoos.

We have reviewed past and projected investment in and utilization of ISIS as well as reports from ISIS and have attempted to make a fair projection of future ISIS productivity as based on the past.

Our evaluation raises questions and has generated recommendations for improved responsiveness of ISIS to zoos.

Questions:

1. How useful has ISIS been to the Oklahoma City Zoo?

a. "The Institution Inventory Report" and "The Institution Acquisition/Release Report" constitute one of the two tangible returns thus far received for our investment in ISIS. They are of little or no value to us in terms of our own management and operations. The data contained in these reports are more conveniently and accurately retrieved from our own records. Their greatest value appears to be a cross-check of ISIS on our collection.

b. "The Species Distribution Report":

We rarely use to locate species in other zoos; however, more practical sources of such information are IZY, the AAZPA Animal Exchange and personal correspondence. Indeed, for species common to ISIS and IZY, we find IZY more complete and accurate than ISIS. The supposedly greater currency of the ISIS inventory has not been demonstrated. Admittedly, ISIS is attempting to provide more data than simple enumerations of species by sex and by institution. However, for our operations and management much of these data seems insignificant or superfluous, at least at this time. (Refer to recommendations). One potentially important datum, i.e., animal longevities, is limited since individuals are not presented by sex, although this separation is done in the "Summaries" for various taxa. In general, we find the format of the "Species Distribution Report" awkward, with important information obscured by material we consider insignificant or superfluous.

2. What aspects of the ISIS program could be most useful to us?

a. "National" Inventories:

If restricted to significant categories of data which are complete, correct, and current and which are reported in an easily readable format, the "Species Distribution Report" for all institutions participating in ISIS may be useful to us. However, our staff strongly believes that no more taxonomic groups should be added until or unless the Inventories and the Studbook/Pedigree Analysis (and perhaps the Physiological Norms) are satisfactorily operational in a usable form for mammals and birds.

b. Studbook/Pedigree Analyses:

It is our concensus that this activity could well be the most valuable resource provided by ISIS. We are very disappointed that this subsystem is not yet operational. In particular, we think that pedigree and demography analysis of selected rare or endangered species with requisite data in extant studbooks should have equal priority with development of the facility to duplicate existing or to construct new studbooks from data in ISIS. Considering funds limitation we believe there should be clearly defined priorities established by zoos with respect to the order in which species will be treated by this subsystem of ISIS. Of vital concern, however, it is not clear to us that the proposed services of the Studbook/Pedigree Analyses will provide the direct information needed, without further computations, to improve mate selection and breeding programs. We believe that prediction of the inbreeding to be incurred in the offspring of potential matings between existing animals must be part of any pedigree analyses if they are to be useful in any way for propagation.

c. Physiological Norms:

In theory, at least as we conceive system, we believe this aspect of the ISIS program could be very useful. However, at present we know little about this subsystem. Hence the next question:

3. What kinds of data will be available, when and at what cost from the Physiological Norms Subsystem?

We believe that continuation of this program should depend on a satisfactory evaluation now of the nature of data to be available, the time when the subsystem will be operational and the cost of data retrieval for users.

4. How valid is ISIS data where individual identification of animals is a requisite, e.g., Studbook/Pedigree analysis?

Because of the serious, sometimes formidable problems of identifying individuals of many species in many zoo situations, we have doubts about the validity of much of the data in ISIS where such individual identification is required. We believe that such problems must be clarified, resolved.

5. Does ISIS benefit from regular and immediate advice of someone with practical zoo experience as well as the necessary familiarity with computer science and population biology?

We feel that many of the problems we have discussed (e.g., validity of data, the most useful kind of results of any pedigree analysis, the content and format of the inventory reports, etc.), might have already been better resolved already if such input were occurring in the development and operations of ISIS; at least, more so than is apparent to us.

6. What is the current status of the IZY inventory operations in relation to the ISIS program?

We wonder if the present inventory operations of IZY and ISIS might be better coordinated or combined to produce a useful, significant, cosmopolitan, and current inventory with less duplication of cost and effort.

7. What is the cost of participation in ISIS for the Oklahoma City Zoo?

- a. At present:

Our current participatory fees to ISIS are approximately \$1500 per year; in addition, the salaries for personnel required to produce our data input to ISIS is approximately \$2000 per year. Hence, we are currently investing about \$3500 each year in ISIS with what we feel is very little useful return on our investment. By comparison, a similar investment in our basic records program provides us with easily retrievable, useable and accurate data.

- b. In the future:

How much more will it cost us to utilize the as yet non-operational Studbook/Pedigree Analyses and the Physiological Norms?

8. Why do we know so little about ISIS?

We feel that communication from ISIS about its development and operations has been very poor to our zoo and to zoos in general. In fact, because of a special interest in the subject and queries addressed to the ISIS office, we discover that our very limited knowledge exceeds that of many colleagues. We feel that there should be more open and active communication and collaboration between ISIS and the AAZPA. Because of our investment of money, time and effort, and because of a sincere professional interest in the end product we wish to be better informed of the objectives, progress, operations and finances of ISIS.

Recommendations:

1. Improve communication and collaboration between ISIS and zoos, through the AAZPA. ISIS should publish more frequent and informative reports about its development, operations and finances.

2. Of particular importance, ISIS should develop a realistic 3 to 5 year budget. Without such reasonable short term financing, continued expenditures may be wasted. Also needed is a feasible time-table of objectives which reflect the needs and desires of zoos. For example. ISIS should be able to predict how soon and at what cost the program can generate necessary and desirable pedigree and demography analysis on designated priority species.
3. ISIS needs a greater awareness of the realities and requirements of zoo operations and objectives. ISIS should have regular input from people with practical zoo experience as well as familiarity with computer science and population biology.
4. In terms of specific programs and outputs, ISIS should be modified to be more useful, significant and responsive to zoos. We have organized our suggestions for such modifications under two main options.
 - OPTION 1: Continue with the current Inventory, Studbook/Pedigree Analysis, and Physiological Norms programs for all, but only, those species already being treated, but with changes (Attachment A) to improve zoo utilization.
 - OPTION 2: Continue the Inventories and Studbook/Pedigree Analyses but only for selected rare and/or endangered species. The Physiological Norms might be continued for all, selected, or no species.
 - OPTION 3: Eliminate the Inventories and concentrate only on the Studbook/Pedigree Analyses and perhaps the Physiological Norms. Either or both of these two programs might then attempt to apply to all species or more likely to only specified species of interest.
5. Whether ISIS continues on its current course or with modifications as suggested above, it seems productive to explore the coordination of ISIS with activities of IZY to produce a significant and useful inventory with less duplication of effort and cost and perhaps greater institutional coverage and more detailed data.
6. While we believe these suggested modifications are desirable and perhaps necessary for a viable ISIS, obviously, any alterations must be clearly defined, costs analyzed and approved by ISIS participants before implementation. And indeed, we believe that many of the modifications recommended would produce more useful results at current or preferably reduced costs to participating institutions.

ATTACHMENT A

Some of the modifications we recommend to improve utility of ISIS programs and outputs are:

A. Inventories:

Continue with the Mammal and Bird Inventories as constituted, including all species. Do not proceed with the Inventories for other taxonomic groups until or unless the existing Inventories, the Studbook/Pedigree Analyses, and the Physiological Norms are usefully operational.

Revise format of Inventory Report, especially the "Species Distribution Report," to present only significant and useful information in a manner more convenient for retrieval, specifically.

- (1) Indicate longevity by sex in the institution by institution enumeration of species and subspecies. A possible format that would require no more spaces than currently used might be:

Name of Institution	#Males/#Females
Male Longevity	
Female Longevity	

- (2) Eliminate seeming insignificant data. For example, in the Summaries, eliminate most of the categories under the headings "Acquired" and "Released," retaining perhaps only indications of captive birth or wild origins under "Acquired" and indications of death or return to the wild under "Released." Moreover, we wonder if the "Species Distribution Report" is the appropriate place to attempt report of cause of death data.

Such elimination would greatly reduce the space required for the "Species Distribution Report" and perhaps render a paper printout, instead of or in addition to the microfiche, more feasible--something we consider desirable.

- (3) Convert presentation of mortality by age into some format as longevity by age and by sex in the Summaries. Hence, a possible format might be:

	1 yr	2 yr	3 yr	4 yr	5 yr	10 yr	15 yr
Male Longevity							
Female Longevity							
Male Mortality							
Female Mortality							

- (4) Again in the Summaries, present the important data on total numbers, number of captive born, number of wild born, number of males and females, and number of institutions holding in a more conspicuous manner than their current obscure placement underneath other less significant items.

B. Studbook/Pedigree Analyses:

- a. Equal priority should be directed to pedigree and demography analysis of endangered or rare species with existing studbooks as is directed towards duplicating existing studbooks or creating new studbooks from ISIS data. Latter is currently limited by the number of institutions participating.
- b. Hence, the facility should be constructed in the ISIS programs to utilize data directly from existing studbooks and accessory sources (e.g. Marvin Jones' recent parentage supplement to the official Okapi Studbook which omits information on parentage) to conduct genetic and demographic analyses without converting data into complete ISIS format and storage.
- c. Pedigree analyses should include predictions of the inbreeding that would be incurred in the offspring of any or all potential matings of existing animals. Merely computing the inbreeding coefficients of already existing animals does not directly indicate what the inbreeding coefficient of offspring resulting from the mating of two existing animals will be. We believe the capacity to produce such predicitions of potential or hypothetical matings to be of extreme significance for breeding programs.
- d. Species and/or situations where identification of individual animals is uncertain or presently impossible must be clarified, identified, and the problems resolved if the data being collected for the Studbook/Pedigree Analyses is to be valid.

C. Physiological Norms:

- a. Description in greater detail is needed of the kinds of data to be available; also, realistic timetable predictions for implementation and the costs of using this program.
- b. This subsystem of ISIS should be evaluated by participating zoos now to determine if the data being submitted is significant in nature and amount and if the implementation of the program is going to be useful and affordable by zoos.

OKLAHOMA CITY ZOO
Rt. 1, Box 1
Oklahoma City, OK 73111
Tel 405/424-3344 Cable OKCZOO

OKLAHOMA CITY ZOOLOGICAL TRUST

November 11, 1977



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ISIS Review Committee;

Mr. Ed Maruska

Mr. Dennis Merritt

Dr. Don Farst

Dr. William Boever

Mr. Don Bridgewater

Ms. Jan Olson, ISIS Coordinator

Mr. Robert Wagner, Exec. Secretary

Zoo Staff

Lawrence Curtis
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Linda Turner
Zoological Curator

Nathanial Batchelder
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Don Baker
Exhibits Curator

Tim O'Connor
Public Information/
Publications

David Davis
Purchasing Supervisor

Gentlemen:

Since ISIS became an official program of the AAZPA our institution has fully supported it, contributing time, resources and fees. Also, however, we have concerns about ISIS.

At the San Diego conference I took the opportunity to discuss with Ms. Olson our correspondence of the previous several months regarding the program. She gave me a copy of her report to the Board and, with it as a "starter", I initiated our own staff study of ISIS, especially with reference to the future, both real and potential.

Attached is the results of this staff review. Our Zoological Curators, Ralph Harris, Mike Blakely, Linda Turner and Tom Foose, Assistant Director, Ernest Hagler and myself have all contributed to this study. Mr. Foose who, incidentally, has had ISIS office experience was given responsibility for preparation of the bulk of the report. However, it well reflects a team effort and the concensus of this institution.

When we heard of your planned site inspection, we hastened completion to make our thoughts available to you for your consideration at this time. Much work has gone into this review and we trust that it is of assistance to you.

The undersigned voted against ISIS when it was proposed at Philadelphia. We were not opposed to ISIS in concept or methodology; we voted against the lack of, in our opinion, a



Letter
November 11, 1977
Page 2

meaningful short term funding proposal and so stated at the time. We felt that a minimum 3 year realistic budget projection (including income) was needed prior to initiating the multi-faceted program envisioned.

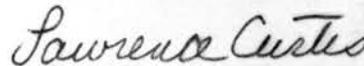
We were voted down - rather soundly, in fact. Nevertheless, we have participated in it and supported it to the best of our ability.

However, we still are concerned with what we perceive as the lack of a realistic short term funding base coordinated with a realistic operating program. Our staff makes a significant time and effort contribution to this program; we are anxious to contribute to something which is real and has some reasonable stability.

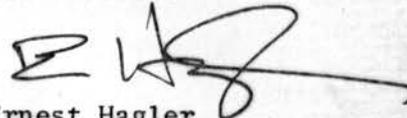
In the belief that other participating zoos might benefit from our thoughts, we encourage you to publish the attached review in the Newsletter, abridged or entire. Also, we suggest that the opinions of other zoos be actively solicited; perhaps some sort of simplified (dirty word) survey might be appropriate.

We look forward to hearing of the fruits of your deliberations.

Yours very sincerely,



Lawrence Curtis
Zoo Director



Ernest Hagler
Assistant Director

LC/rp

Attachment

cc: Zoo staff

ISIS

SAMPLE OF STUDBOOK-LIKE REPORT (BREEDER FORMAT)

STDBK NO.	S E X	HOUSE NAME	STDBK NAME	ISIS SPEC ID	SIRE	DAM	SIRE=S SIRE	DAM=S DAM	DAM=S SIRE	DAM=S DAM
-----------	-------	------------	------------	--------------	------	-----	-------------	-----------	------------	-----------

1 M IWAN#EM 123456 WILD WILD

BIRTH DATE	DEATH DATE	LOCATIONS	ACQUIRED	RELEASED
1954	09/12/1963	HAMBURG	01/12/1955	09/12/1963

OFFSPRING DATA

STDBK	ISIS	SEX	BY	BIRTH	BIRTH DATE	DEATH DATE
26	4863	M	16	HAMBURG	22/08/1957	UNKNOWN
27	4864	F	16	HAMBURG	22/08/1957	UNKNOWN
28	4865	F	16	HAMBURG	22/08/1957	UNKNOWN
31	4868	F	2	HAMBURG	07/05/1959	28/09/1971
32	4969	M	2	HAMBURG	01/06/1960	27/02/1968

2 F SASCHA 13348 WILD WILD

BIRTH DATE	DEATH DATE	LOCATIONS	ACQUIRED	RELEASED
1955	17/02/1972	HAMBURG	19/09/1956	17/02/1972
		PURGATO	17/02/1972	17/03/1972
		HEAVEN	17/03/1972	

OFFSPRING DATA

STDBK	ISIS	SEX	BY	BIRTH	BIRTH DATE	DEATH DATE
31	4868	F	1	HAMBURG	07/05/1959	28/09/1971
32	4969	M	1	HAMBURG	01/06/1960	27/02/1968

3 F TATJA 236544 WILD WILD

BIRTH DATE	DEATH DATE	LOCATIONS	ACQUIRED	RELEASED
1955	07/10/1963	HAMBURG	21/04/1956	07/10/1963

4 M HATSCHI 19001 WILD WILD

BIRTH DATE	DEATH DATE	LOCATIONS	ACQUIRED	RELEASED
UNKNOWN	01/04/1954	LEIPZIG	24/09/1954	01/04/1957

174558

UNIVERSITY OF MINNESOTA THE STATE UNIVERSITY OF MINNESOTA

ISIS

SAMPLE OF STUDBOOK#LIKE REPORT (CONVENTIONAL FORMAT)

374044

STDBK NO.	S E X	HOUSE NAME	STDBK NAME	ISIS SPEC ID	SIRE	DAM	SIRE=S SIRE	DAM=S DAM	DAM=S SIRE	DAM=S DAM

1	M	IWAN#EM		123456	WILD	WILD				
				BIRTH DATE	DEATH DATE		LOCATIONS	ACQUIRED	RELEASED	
				1954	09/12/1963		HAMBURG	01/12/1955	09/12/1963	
2	F	SASCHA		13348	WILD	WILD				
				BIRTH DATE	DEATH DATE		LOCATIONS	ACQUIRED	RELEASED	
				1955	17/02/1972		HAMBURG	19/09/1956	17/02/1972	
							PURGATO	17/02/1972	17/03/1972	
							HEAVEN	17/03/1972		
3	F	TATJA		236544	WILD	WILD				
				BIRTH DATE	DEATH DATE		LOCATIONS	ACQUIRED	RELEASED	
				1955	07/10/1963		HAMBURG	21/04/1956	07/10/1963	
4	M	HATSCHI		19001	WILD	WILD				
				BIRTH DATE	DEATH DATE		LOCATIONS	ACQUIRED	RELEASED	
				UNKNOWN	01/04/1954		LEIPZIG	24/09/1954	01/04/1957	

ISIS

SAMPLE OF STUDBOOK-LIKE REPORT (LAST HOLDING INSTITUTION FORMAT)

174471
THE UNIVERSITY OF MINNESOTA
UNIVERSITY COMPUTER CENTER

STDRK NO.	S E X	HOUSE NAME	STDRK NAME	ISIS SPEC ID	SIRE	DAM	SIRE=S SIRE	DAM=S DAM
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#HAMBURG*

1 M IWAN#EM 123456 WILD WILD

BIRTH DATE	DEATH DATE	LOCATIONS	ACQUIRED	RELEASED
1954	09/12/1963	HAMBURG	01/12/1955	09/12/1963

3 F TATJA 236544 WILD WILD

BIRTH DATE	DEATH DATE	LOCATIONS	ACQUIRED	RELEASED
1955	07/10/1963	HAMBURG	21/04/1956	07/10/1963

#HEAVEN *

2 F SASCHA 13348 WILD WILD

BIRTH DATE	DEATH DATE	LOCATIONS	ACQUIRED	RELEASED
1955	17/02/1972	HAMBURG	19/09/1956	17/02/1972
		PURGATO	17/02/1972	17/03/1972
		HEAVEN	17/03/1972	

#LEIPZIG*

4 M HATSCHI 19001 WILD WILD

BIRTH DATE	DEATH DATE	LOCATIONS	ACQUIRED	RELEASED
UNKNOWN	01/04/1954	LEIPZIG	24/09/1954	01/04/1957



ENDANGERED SPECIES TECHNICAL BULLETIN

Department of the Interior • U.S. Fish and Wildlife Service • Endangered Species Program, Washington, D.C. 20240

A Guide to Endangered Species Regulations

In this issue, the BULLETIN presents "A Guide to Endangered Species Regulations"—a special feature designed to enhance understanding of the regulations now in force to protect imperiled animals and plants at home and abroad. The guide covers all the requirements of both the Endangered Species Act of 1973 and U.S. regulations carrying out the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The guide starts on page 3.

FWS, NMFS Divide Sea Turtle Duties

The Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) have agreed by memorandum of understanding to divide program responsibilities covering sea turtles listed under the Endangered Species Act of 1973.

Henceforth, NMFS will have sole jurisdiction over sea turtles—including parts or products—when they are in a marine environment, i.e., in the oceans and seas, bays and estuaries, brackish water areas, and waters adjacent to nesting beaches. FWS will have sole jurisdiction when the turtles, including parts and products, are on land. These respective jurisdictions will apply to consultations involving compliance with the provisions of section 7 of the act.

The Federal Wildlife Permit Office of the FWS will serve as a central clearinghouse for both agencies in the processing of permit applications and certifications affecting sea turtles.

Currently, three sea turtles are listed as Endangered: the Atlantic ridley (*Lepidochelys kempi*), leatherback (*Dermochelys coriacea*), and hawksbill (*Eretmochelys imbricata*). Three others have been proposed as Threatened: the green turtle (*Chelonia mydas*), loggerhead (*Caretta caretta*), and Pacific ridley (*Lepidochelys olivacea*).

The FWS and NMFS expect soon to propose certain Virgin Islands beaches and adjacent offshore areas as Critical Habitat for the leatherback.

Greenback Cutthroat Trout Returning; Change to Threatened Status Sought

The success of Federal and State agencies in restoring the greenback cutthroat trout (*Salmo clarki stomias*) has led the Service to propose changing the fish's protection category from Endangered to Threatened (F.R. 9/26/77).

Found only in Colorado, the fish was originally listed as Endangered under the Endangered Species Act of 1969, primarily because of extensive hybridization with introduced trout species and habitat alteration throughout its range. The Service believes this species should now be reclassified to the much improved Threatened status, as biological evidence indicates that the greenback cutthroat has made a significant comeback.

Greenback cutthroat trout populations have been located or reintroduced in several stretches of water within the fish's historic range in the headstreams of the South Platte and Arkansas river systems. Furthermore, there is a successful ongoing effort to eliminate introduced trout—especially rainbow trout and other subspecies of cutthroat trout—that could hybridize with the greenback cutthroat within its

present range.

The most recent reintroduction efforts took place at Bear Lake in Rocky Mountain National Park, where native greenback cutthroats were restocked after the successful removal of introduced trout.

Nevertheless, introduction of non-native trout by fishermen continues to pose a threat to the subspecies, as does the natural destruction of barrier dams. In addition, although its habitat on public lands appears to be safe from degradation, habitat areas on private lands are still subject to the adverse effects of logging, mining, grazing, and water development projects.

While recognizing the continuing need for Federal protection as well as Critical Habitat determination for the subspecies, the Service also believes there is evidence that the greenback cutthroat trout may benefit from regulated taking through noncommercial fishing in certain areas. Accordingly, the Service has included within its proposed rulemaking a special regulation that would allow taking of the subspecies in accordance with Colorado State laws.

Comments on the proposed rulemaking are due by December 27, 1977.



U.S. Fish and Wildlife Service photo

Intensive conservation effort has enabled *Salmo clarki stomias* to make a significant comeback in Colorado

A Guide to Endangered Species Regulations

Rare Plant Data Symposium

The National Park Service and the New York Botanical Garden will sponsor a symposium in New York City November 15-17 under the title "Geographical Data Organization for Rare Plant Conservation."

Currently, a number of researchers are compiling quantities of biogeographical information on rare plants in data banks. The symposium will take up a representative selection of these diverse systems and discuss data priorities and data organization problems in various regions of the Nation. In addition, attendees will focus on the prospects for promoting information exchange and for coordinating data organization procedures among Federal, State, and regional parties.

For further information, contact Dr. Larry E. Morse, New York Botanical Garden, Bronx, New York 10458; (212-220-8658).

New Publications

The Biota of North America, Part 1: Vascular Plants, Vol. 1: Rare Plants, by John T. and Rosemary Kartesz, is now available. This volume, intended to serve as a liaison directory and compilation of information on rare plants, should also help States and North American

botanists promote and establish protective laws and species listings for these plants. (A similar volume on rare animals is now in preparation.) For more information on cost and availability, write to Mr. John T. Kartesz, Executive Director, Biota of North America Committee, 2202 Ridge Road, McKeesport, Pa. 15135.

The Arkansas Natural Heritage Commission has published a leaflet on "Arkansas Plants Nominated for Listing as Endangered." For copies, write Arkansas Natural Heritage Commission, Suite 500, Continental Bldg., Main & Markham, Little Rock, Arkansas 72201.

An *Annotated Checklist of Birds, Mammals, Reptiles and Amphibians of the Virgin Islands and Puerto Rico* has been compiled of 393 species from the seven geographic island areas by Richard Philibosian and John A. Yntema. For each listing, there is a designation of status, its breeding location, and seasonal patterns. Copies are available for \$2.00 postpaid, from Information Services, P.O. Box 305, Frederick, St. Croix, U.S. Virgin Islands 00840.

A summary of current knowledge on *Endangered and Threatened Plants of Idaho* has been published by the University of Idaho. For copies, contact the Forest, Wildlife and Range Experiment Station, Moscow, Idaho 83843.

ENDANGERED SPECIES SCIENTIFIC AUTHORITY

Notices—September 1977

The *Endangered Species Scientific Authority (ESSA)* is responsible for the biological review of applications to export or import species listed in Appendix I, and to export species listed in Appendix II, of the Convention on International Trade in Endangered Species of Wild Fauna and Flora. Notices of ESSA's findings and other actions are published in the Federal Register. Summaries of these notices are reported in the BULLETIN by month of publication.

Pet Imports Discouraged by ESSA Policy Decision

The Endangered Species Scientific Authority (ESSA) has disapproved an application to import a pair of protected margays (*Felis wiedii*) which an American couple had purchased at a village market in Nicaragua and wanted to donate to a zoo in the United States.

In a statement, ESSA said the permit application for the zoo did not satisfy its recently developed policy covering the import of species, such as the Nicaraguan margay, which are listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The policy holds that imports of Appendix I animals and plants, which are threatened with extinction, generally will be allowed only for the following purposes: (1) essential scientific uses not detrimental to the survival of the species; (2) enhancement of the propagation or survival of the species; and (3) any bonafide scientific use of salvaged specimens, provided that the possibility of import neither directly nor indirectly contributed to the specimen's death or removal from the wild.

Import for other purposes will be disapproved unless the evidence establishes that import is in the best interest of the species.

Dr. William Y. Brown, executive secretary of ESSA, said people may buy wild pets while abroad because they are concerned about the well-being of the animals, not realizing that at the same time they are encouraging the collection of the animals for more sales as pets.

Reference Note

All Service notices and proposed and final rulemakings are published in the *Federal Register* in full detail. The parenthetical references given in the BULLETIN—e.g., (F.R. 5/3/77)—list the month, day, and year that the notice or rulemaking was published in the *Federal Register*.

Federal and international laws and regulations are now fully in force to help ensure the continued survival of imperiled animals and plants in the United States and around the world.

Strict domestic regulations have been developed to protect jeopardized wildlife since passage of the Endangered Species Act of 1973. Regulations and permit procedures governing plants protected under the act took effect on July 25, 1977.

In May 1977, the United States published regulations to enforce the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The U.S. and nearly 40 other nations are party to the Convention, which has established procedures to control and monitor the import and export of imperiled species covered by the treaty.

The Endangered Species Act and the Convention share many similarities in that the protection they provide extends to species all over the world. However, it is important to point out that these separate measures—one domestic and the other international—employ different terminology, address separate (but overlapping) lists of protected species, and, in addition, serve somewhat different purposes.

Scope of the Convention

The primary function of the international Convention is to regulate international trade in the species it protects. Its rules apply only to import, export, and reexport. The rules do not apply, as part of an international instrument, to interstate shipments, to the "taking" (killing or capture) of species, or to the preservation of habitat.

Unlike many other treaties which gather dust on library shelves, the Convention is an active and forceful agreement whose member countries meet regularly to assess and improve its effectiveness. Convention rules are implemented in each country by a permit-issuing office (a management authority), which in turn is advised by a scientific authority.

U.S. Management Authority

By delegation of the Secretary of the Interior, the Convention's management authority in this country is the Federal Wildlife Permit Office of the Fish and Wildlife Service. In addition to acting as the official U.S. spokesman on all matters relating to the international Convention and coordinating U.S. implementation, the management authority receives and issues all Convention-required permits and certificates, consulting as necessary with other Federal and State agencies.

U.S. Scientific Authority

Established by Presidential order, the scientific authority for the U.S. is an autonomous committee of representatives of six Federal agencies (including the Department of the Interior) plus the Smithsonian Institution. Called the Endangered Species Scientific Authority (ESSA), it is chaired by the chief of the Office of Endangered Species of the Fish and Wildlife Service. Other agencies represented are the Departments of Agriculture, Health, Education and Welfare, and Commerce; the National Science Foundation; and the Council on Environmental Quality.

ESSA's primary responsibility is to establish biological criteria on which to

base findings for individual species protected by the Convention, so that it may advise the management authority on the issuance of appropriate U.S. export and import permits.

Other parties to the Convention are also establishing scientific and management authorities.

Scope of Endangered Species Act

The U.S. law is broader than the Convention in its application, and applies to all jeopardized species that warrant Federal protection—including those endangered by habitat destruction and many other things, whether or not they are of value in the commercial market. The act regulates the taking and capture of all listed animals, as well as interstate and foreign commerce in both animals and plants, and provides for land acquisition and financial assistance to States and foreign countries.

The Endangered Species Act is administered by the Secretary of the Interior, acting through the Director of the Fish and Wildlife Service and with the assistance of the Service's Endangered Species Office.

In the case of marine species, actions are taken in cooperation with the Secretary of Commerce, through the Director of the National Marine Fisheries Service. Similarly, in the area of import/export enforcement for Endangered plants, Interior cooperates with and is assisted by the Department of Agriculture through the Animal and Plant Health Inspection Service.

The following guide indicates the chief differences and similarities between the 1973 act and the Convention. The listing processes, prohibitions, and permit procedures are presented side by side for comparative purposes.

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Endangered Species Act Regulations

While the Convention addresses species that are (or may be) affected by trade in sufficient volume as to be a potential threat to their survival, the Endangered Species Act provides protection to any species threatened by any of the following factors:

1. The present or threatened destruction, modification, or curtailment of the species' habitat or range.
2. Overutilization for commercial, sporting, scientific, or educational purposes.
3. Disease or predation.
4. The inadequacy of existing regulatory mechanisms.
5. Other natural or man-made factors affecting its continued existence.

Two listing classifications are provided:

- **Endangered**—any species which is in danger of extinction through all or a significant portion of its range.
- **Threatened**—any species which is likely to become "Endangered" within the foreseeable future through all or a significant portion of its range.

Convention Regulations

The Convention approaches the protection of species from the standpoint of how trade (import-export) would affect the status of a particular species in the wild in its native country. The scope of the Convention extends to animals and plants, terrestrial or marine.

Generally, the destruction of habitat by human development is the major cause of the decline and extinction of animals and plants. But international trade can be an important factor in the decline of some species, if it promotes overhunting for fur or hides, for food products, for pets, for exhibition, for sport, for scientific experimentation, or for other purposes. Plants can be jeopardized by overcollecting for private or commercial purposes. When an overcollected species is imported or exported, it may be eligible for protection under the Convention.

Accordingly, the Convention recognizes that controls are essential now for many imperiled species, and that safeguards are necessary for others that could be jeopardized.

(continued on page 4)

ENDANGERED SPECIES ACT

The Listing Process

Species are added to or deleted from the list by Federal "rulemakings." A member of the public may petition for such action, or the listing process may be initiated by the Department of the Interior based on available knowledge of the species' biological status, as modified by existing or potential threats. The proposed listing, delisting, or reclassification is published in the *Federal Register*, and the public is given at least 60 days in which to comment. State governors are allowed 90 days, in the case of "resident" species. A public hearing may also be requested within 45 days after the *Federal Register* publication.

Following review of comments and evaluation of the best available biological data, a final rulemaking is then formulated by the Director of the Fish and Wildlife Service. The rulemaking will generally become official 30 days after publication of the final "determination." This process is also followed for the designation of Critical Habitat for Endangered and Threatened species. Notices of review, proposals, and final rulemakings, plus periodically updated lists of protected species, are published in the *Federal Register*.

Prohibited Activities

The act and the Convention prohibit certain activities involving protected species unless an exception applies or a permit is granted.

The Endangered Species Act places a number of restrictions on activities that can be conducted with protected species. These prohibitions include import, export, taking (except plants); if illegally taken, possession, transporting, carrying, etc.; delivery, receipt, transportation, etc., in interstate or foreign commerce in the course of a commercial activity; and sale or offer for sale in interstate or foreign commerce.

These prohibitions apply to live or dead species; to their parts or products; to all progeny of animals born on or after December 28, 1973 (effective date of the act), and to animals held at that time for sale or barter.

There is no Federal prohibition under the Endangered Species Act against the taking of Endangered or Threatened plants. However, the taking of plants is sometimes regulated by local, State, or Federal agencies under other legislation. Also, Federal responsibilities under section 7 of the act apply if taking of individual Endangered or Threatened plants would jeopardize their continued existence. Seeds of cultivated Threatened plants are exempt from regulation provided that a statement of origin accompanies them during the course of any activity otherwise subject to regulation.

The act does not affect interstate commerce, which is under the jurisdiction of the individual States.

Bona fide gifts and standard breeding loans in interstate commerce are not considered commercial activities and are permitted. Also, Endangered species may be offered for sale, but the advertisement must include a notice that the sale is contingent upon the buyer (or seller of cultivated plants) receiving a valid permit from the Fish and Wildlife Service. One does not need a Federal Endangered species permit to possess legally acquired protected species.

Exceptions to the Rules

- A "grandfather clause" exempts listed animals held prior to enactment of the law (pre-December 28, 1973) if kept in a controlled environment for non-commercial purposes.
- Alaskan natives are allowed to use listed species for subsistence and handicraft purposes.
- Seeds of cultivated Threatened plants are exempt if their origin can be verified.
- Listed animals may be taken in defense of human life.
- Taking of a sick, injured, or dead listed animal is permitted by qualified Federal or State employees.

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dicted by a high demand in export-import markets. The Convention established three appendices, or categories, of species to provide for appropriate and differing degrees of control:

• **Appendix I**—Species which are threatened with extinction and are or may be affected by trade. These species are in need of particularly strict regulation to prevent their future endangerment.

• **Appendix II**—Species which, although not now necessarily threatened with extinction, may become so unless their trade is regulated and monitored.

• **Appendix III**—Species may be placed on this Appendix by any individual Convention nation as being subject to conservation regulation within its jurisdiction, to gain the cooperation of other countries in reinforcing its conservation measures. Any nation may list a species native to its country on this Appendix without approval of the other parties to the Convention.

Listing of Species

The species listed under Appendices I and II may be from any country in the world and are not limited to the treaty nations. Species are added to or removed from these two appendices by international agreement.

The formal procedure in the U.S. for public input to proposed amendments to the appendices has not yet been fully established. However, a process similar to the "rulemaking" procedure for listing species under the Endangered Species Act is now contemplated. In the meantime, U.S. proposals for amendment of the appendices will be published in the *Federal Register*, and the public will be allowed to comment before any amendments are officially requested by the U.S. management authority. The U.S. position would then be forwarded for approval of the party nations, either by postal procedure or by majority vote at a formal conference.

Appendix I Species Permits

The Convention's most stringent controls are directed at regulating activities involving species listed in Appendix I. All shipments of such species, their parts and derivatives (including manufactured products), require two permits—one from the importing country (obtained first), and another from the exporting country.

Before a permit can be granted for import of an Appendix I species into the United States, the Endangered Species Scientific Authority must find and so advise the U.S. management authority that the purposes of importation will not be detrimental to the survival of the species in the wild. ESSA will generally approve the import of Appendix I animals and plants if for essential scientific research (not detrimental to the species) or for purposes that would enhance the propagation or survival of the species.

ESSA must also find that the recipient of a living Appendix I specimen is suitably equipped to house and care for the specimen.

The scientific authority of the exporting country must also find that the proposed transaction will not be detrimental to the survival of an Appendix I species before issuing an export permit.

Permits for Appendix I species may not be issued for purposes which are primarily commercial.

Appendix II Species Permits

The Convention's controls serve to monitor the volume of traffic in these less seriously threatened species. Export permits must be issued from the country of origin for Appendix II specimens, and may be granted for any purpose if the scientific authority advises that the import will not be detrimental to the survival of the species.

As authorized by the Convention, ESSA will monitor both the export permits and the actual export of Appendix II

ENDANGERED SPECIES ACT

• Taking of listed species by State employees operating pursuant to a State cooperative agreement with the Service is allowable for acceptable purposes.

Permit Specifications

The Endangered Species Act recognizes a limited number of legitimate purposes for obtaining permits that grant access to protected animals and plants. Under the act, the intended recipient (except in the case of cultivated plants) must submit the application, which must be for one of the following purposes:

• **Endangered Species:** Permits may be issued for scientific research and for enhancing the propagation or survival of the species. Techniques such as relocation of surplus stock, conservation exhibition, and euthanasia are acceptable for any Endangered animals already in captivity. Economic hardship permits may also be granted, but are limited to one year from the time of a notice of review or proposed listing of the species.

• **Threatened Species:** Permits may be issued for scientific research purposes, enhancing the propagation or survival of a species; zoological, horticultural, or botanical exhibition, and educational purposes; under special rules for individual species; and for exotic wildlife designated as Captive, Self-Sustaining Populations (CSSP).

The regulations allow for taking of Endangered or Threatened species by designated employees of a State which has entered into a cooperative agreement with the Service. Such a State employee may take an Endangered species for certain acceptable conservation purposes, except under specified circumstances that would prove detrimental to the specimen's survival, for which a permit is required. Except under special rules published for the management of individual Threatened species, a State agency acting under the terms of a cooperative agreement may take a Threatened species without a permit to carry out scientific research or conservation programs.

The regulations also recognize that some species of animals, listed as Endangered in the wild outside of the U.S., are being successfully bred in captivity in this country. These CSSP's have been reclassified as Threatened and multiple transaction permits may be issued for their trade in interstate commerce. Permits may be issued for any purpose that would not be detrimental to the survival of a CSSP species, in accordance with permit provisions for Threatened species.

PERMIT APPLICATION REVIEW PROCESS

Prohibited activities under the act and the Convention may be conducted without a permit if an exception applies. However, the exceptions are exclusive to each law and cannot be used to avoid a prohibition of a different law. When a species is covered by more than one law, the requirements of each law must be met.

All Endangered species and Convention permit and certificate applications are received and initially reviewed by the Federal Wildlife Permit Office.

Notice of receipt of permit applications for all species listed solely under the act will be published in the *Federal Register*, for public comment. The applications are subsequently reviewed by the Office of Endangered Species, and undergo technical review by the Division of Law Enforcement. All comments and recommendations are evaluated before a determination is made on issuance of the permit by the Federal Wildlife Permit Office.

Convention permit applications (not certificates) are reviewed by the Endangered Species Scientific Authority. Based on ESSA's findings and other factors, approval must be granted by the management authority before permit issuance. Acting on the advice of the Service's Division of

CONVENTION

species from the United States. As mandated under the Convention, the volume of trade in these specimens may be limited by the scientific authority "in order to maintain that species throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I."

For Appendix I or II species taken from the high seas, an import permit must be issued by the country of destination.

Appendix III Species Permits

International shipment of Appendix III species requires either an export or reexport certificate from the country that listed the species, or a certificate of origin from any other country.

Appendix Permits: Summary

To summarize, the U.S. issues import permits only for Appendix I species and for specimens taken from the high seas. It issues export permits only for native species leaving this country. Export permits to bring foreign species into this country must be obtained from proper officials in the country of origin.

Convention Full Exceptions

Full exceptions are allowed Convention species in the following categories:

- Personal or household effects, accompanied by appropriate documentation.
- Transshipment through the United States.

Convention Partial Exceptions

Certificates, instead of permits, must accompany shipments of the following "exceptions" and must be obtained from the country of origin or propagation:

- Pre-Convention specimens (acquired prior to dates listed in Appendices I, II, or III).
 - Animals bred in captivity or artificially propagated plants.
 - Exchanges between scientists or scientific institutions of museum or herbarium specimens (issued by the scientist's home country for the specimens already in a collection).
 - Reexport of a specimen that was legally imported.
- To increase its effectiveness, the Convention requires documentation equivalent to a permit or certificate from non-party countries. An example of acceptable foreign documentation is available from the Federal Wildlife Permit Office.

Law Enforcement, the Department of Agriculture and other appropriate agencies, the Federal Wildlife Permit Office also reviews and issues Convention certificates, as appropriate.

Designated Ports

The regulations require that all animals (except marine mammals) imported into the U.S. enter through eight designated ports for inspection by Fish and Wildlife Service law enforcement officers. Convention exports must also exit through these ports: New York City, Miami, Chicago, San Francisco, Los Angeles, New Orleans, Seattle, and Honolulu. Plants may also be imported and exported through ports designated by the U.S. Department of Agriculture.

Compliance With Other Laws

Other U.S. State, local, and foreign laws may also apply to species listed under the act and/or the Convention. It is the responsibility of the individual to learn about and comply with all applicable laws.

More specific information on the provisions of these laws, as well as permit applications and lists of protected species, may be obtained from the Federal Wildlife Permit Office, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (telephone: 202-634-1496).

Rulemaking Actions—September 1977

FINAL RULING

Five Southeastern Fishes

In a final rulemaking issued by the Service, five species of fishes native to the southeastern United States have been listed as Threatened and their individual ranges have been designated as Critical Habitats (F.R. 9/9/77). The ruling takes effect October 11, 1977.

The five species are the Alabama cavefish (*Speoplatyrhinus polsoni*), slender chub (*Hybopsis cahnii*), spottin chub (*Hybopsis monacha*), slackwater darter (*Etheostoma boschungii*), and yellowfin madtom (*Noturus flavipinnis*).

The Service believes such protection is needed because the fishes' various habitats are threatened by stream channelization and other alterations, as well as siltation, chemical spillage (including fly ash and sulfuric acid), sewage discharge, and coal mining wastes. In the case of the Alabama cavefish, found only in one cave in Lauderdale County, Alabama, the chief threat is groundwater pesticide pollution attributable to local farming activities.

Background

The final rulemaking is basically the same as that proposed in the *Federal Register* on January 12, 1977.

In response to the proposal, the

PROPOSED RULINGS

Revisions Proposed in Regulations Affecting Threatened Species

Acting to remove a potentially serious loophole, the Service has issued a proposed rulemaking to revise certain regulations relating to Threatened species; it also has issued an interim emergency ruling that puts these revised regulations into effect for 120 days (F.R. 9/16/77).

The loophole occurred as a result of a May 11, 1976, amendment to incorporate the State Cooperative Agreement Program into the Service's existing regulations for Endangered and Threatened species.

It was the Service's initial intention to make sure that, with one major exception, the prohibitions and provisions under a cooperative agreement would apply to both Endangered and Threatened species. The exception was that certain specific restrictions on the taking of Endangered species by qualified State employees did not apply to the

taking of Threatened species [§ 17.21(c)(5)].

The actual language of the amendment, however, inadvertently excluded from applicability to Threatened species not only the subsection dealing with the restrictions but also three other major subsections.

These other subsections set forth the prohibitions dealing with the possession of illegally taken Endangered species, as well as the commercial transportation or sale or offer for sale in interstate or foreign commerce of Endangered species.

Recognizing that these prohibitions also are essential for the conservation of Threatened species, the Service believed that the amendment omission represented a significant risk to the well-being of Threatened species.

Accordingly, the Service determined it was necessary to issue an emergency



Photo by Bob Jenkins, Virginia Commonwealth University

Spottin chub, a pollution victim listed as Threatened

Service received comments from three Federal agencies (the U.S. Forest Service, the U.S. Soil Conservation Service, and the Tennessee Valley Authority), four States (Alabama, North Carolina, Tennessee, and Virginia), two private organizations (the American Society of Ichthyologists and Herpetologists and the Sierra Club), and two professional ichthyologists.

Most of the comments either supported the proposal or offered no objections, while some made specific suggestions, especially concerning the particular Critical Habitat delineations.

Based on these recommendations and

the additional information received, the Service decided to somewhat revise its originally proposed Critical Habitat designation for the slackwater darter, principally by reducing the area in the Cypress Creek system and eliminating the Flint River area until more specific data on the fish's needs are available.

In making its final ruling, the Service also announced that it would review the status of each of the five fishes to determine whether or not they should be proposed for inclusion in the appropriate appendixes to the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

rulemaking effectively reinstating the three omitted subsections. This ruling will remain operative from September 16, 1977, until January 14, 1978.

The Service intends to proceed during this period with the regular rulemaking process as it relates to the proposal, which is substantially the same as the emergency ruling. In the meantime, the Service invites all interested parties to submit written comments on the proposed rulemaking. All comments are due by November 15, 1977.

Technically, as applied to the Code of Federal Regulations, the proposal relates to 50 CFR Part 17. The omitted subsections are § 17.21 (d), (e), and (f). Accordingly, the Service proposes to amend § 17.31(a) to read as follows:

§ 17.31 Prohibitions

(a) Except as provided in Subpart A of this Part, all of the provisions in § 17.21 shall apply to threatened wildlife, except § 17.21(c)(5).

Little Kern Golden Trout

The Service has issued a proposed rulemaking to add the Little Kern golden trout (*Salmo aguabonita whitei*) to the Threatened list and to designate the fish's range in Tulare County, California, as Critical Habitat (F.R. 9/11/77).

The trout is known to occur only in the Little Kern river system. Although the water quality of these streams is generally good at present, forestry management plans now under consideration could result in extensive logging in the drainage basin. It is possible that such activities would increase the temperature of the water and the amount of siltation, thereby seriously threatening the survival of the Little Kern golden trout.

Hybridization represents the most serious threat to this subspecies. Since rainbow trout were introduced in the river system in the 1930's, there has been considerable interbreeding among the two trout. As a result, pure populations of the Little Kern golden trout now exist only in headwater streams that have either not been stocked with rainbow trout or have waterfalls that form a natural barrier to upstream migration of the introduced fish.

In its proposal, the Service recommends as Critical Habitat for the native trout the main channel of the Little Kern River and all streams tributary to the Little Kern above the junction of the Little Kern and the Kern rivers.

Comments on this proposed rulemaking should be submitted to the Service by December 1, 1977.

Critical Habitat Listings Corrected and Republished

The Service has issued a final rulemaking (F.R. 9/22/77) to correct errors that inadvertently appeared in the Critical Habitat listings for six species and subspecies published in the August 11, 1977, issue of the *Federal Register*.

The six species and subspecies are the Florida Everglade kite (*Rostrhamus sociabilis plumbeus*), American peregrine falcon (*Falco peregrinus anatum*), pallia (*Psittirostra bailliei*), yellow-shoudered blackbird (*Agelaius xanthomus*), dusky seaside sparrow (*Ammospiza maritima nigrescens*), and Cape Sable sparrow (*Ammospiza maritima mirabilis*).

In addition, the ruling includes a map of the Critical Habitat of the St. Croix ground lizard, which was accidentally omitted from the published ruling on August 11.



Mine detector-like device is used to stun fish and collect Arizona trout in habitat restoration project

Arizona Trout Habitat On Ord Creek Restored

Some Threatened Arizona trout (*Salmo apache*) have gained a new lease on their habitat along a 2.5-mile stretch of Ord Creek on the Fort Apache Indian Reservation in Arizona.

During the first week of September, the habitat area was cleared of competing species of brook trout (*Salvelinus fontinalis*), brown trout (*Salmo trutta*), and other fish crowding out the Arizona, or "Apache," trout for food and spawning space. The restoration was performed with the aid of a fish barrier erected across the creek. About 100 Arizona trout, most of them older fish, were captured by electrofishing and held in tanks.

Then the section of creek was cleared by applying antimycin (a toxicant that is essentially harmless to nonaquatic life forms). Later, after the toxicant had disappeared, the Arizona trout were returned to the stream.

The restoration project was undertaken by the Fish and Wildlife Service, in cooperation with the Bureau of Indian Affairs, Fort Apache Tribe, Arizona State University, and the U.S. Forest Service.

Once ranging over the upper Salt and Little Colorado rivers, and possibly the upper San Francisco river system, the Arizona trout had been forced back by the 1950's to a few headwater streams above 8,000 feet by competition from other species. It had also been extensively hybridized with introduced rainbow trout (*Salmo gairdneri*).

Initially listed as Endangered in 1973, the fish was reclassified to the Threatened status in 1975 as the result of intensive management efforts by the Service, Bureau of Indian Affairs, and Arizona Game and Fish Department. It is hoped that restoration projects will so improve this species' status that fishermen may soon look forward to catching this colorful trout.



A live Arizona trout about to be returned to cleared creek

Pending Rulemakings

The Service expects to issue rulemakings and notices of review on the subjects listed below during the next 90 days. The status or action being considered for each final and proposed rulemaking is given in parentheses.

The decision on each final rulemaking will depend upon completion of the analysis of comments received and/or new data made available, with the understanding that such analysis may result in modification of the content or timing of the original proposal, or the rendering of a negative decision.

Pending Final Rulemakings

- Bald eagle (modification of status in Lower 48 States)
- Leopard darter (T, C.H.)*
- 27 snails (E, T)
- 6 butterflies (C.H.)
- Contra Costa wallflower and Antioch Dunes evening primrose (C.H.)
- 13 plants (E, T)
- Grizzly bear (C.H.)
- Gray wolf (reclassification to T in Minn.; C.H.)
- Florida pine barrens treefrog (E, C.H.)
- Golden coqui (T, C.H.)
- 15 crustaceans (E, T)
- Whooping crane (C.H.)
- Black toad (T, C.H.)
- Atlantic salt marsh snake (T)

Pending Proposed Rulemakings

- Ozark big-eared bat (E)
- Virginia big-eared bat (E)
- African elephant (S.O.A. to Asian elephant)
- 11 beetles (E, T)
- Puerto Rican whip-poor-will (C.H.)
- Laysan duck (C.H.)
- 2 harvestmen (E, T)

BOX SCORE OF SPECIES LISTINGS

Category	Number of Endangered Species			Number of Threatened Species		
	U.S.	Foreign	Total	U.S.	Foreign	Total
Mammals	36	227	263	2	17	19
Birds	68	144	212	2		2
Reptiles	10	46	56	2		2
Amphibians	4	9	13	1		1
Fishes	30	10	40	9		9
Snails		1	1			
Clams	23	2	25			
Crustaceans						
Insects	6		6	2		2
Plants	4		4			
Total	181	439	620	18	17	35

Number of species currently proposed: 101 animals
1867 plants (approx.)

Number of Critical Habitats proposed: 34

Number of Critical Habitats listed: 20

Number of Recovery Teams appointed: 59

Number of Recovery Plans approved: 9

Number of Cooperative Agreements signed with States: 19

September 30, 1977

- 3 mussels (C.H.)
- Rocky Mountain peregrine falcon population (C.H.)
- 29 Southeastern U.S. fishes (E, T)
- Humpback chub (C.H.)
- Colorado squawfish (C.H.)
- Woundfin (C.H.)
- Virgin River chub (E, C.H.)

Pending Notices of Review

- African elephant
- Mexican duck
- 10 U.S. reptiles

*Abbreviations: E - Endangered, T - Threatened, C.H. - Critical Habitat, S.O.A. - similarity of appearance

We Still Need Your Help

Your response to our call for information and suggestions has been most encouraging and useful, and it has played an important role in making the BULLETIN a success. Consequently, we invite you to continue sending us reports on your latest research and management activities (accompanying illustrations are also most welcome), as well as your ideas and comments about specific topics and the BULLETIN as a whole.



ENDANGERED SPECIES TECHNICAL BULLETIN



Department of the Interior • U.S. Fish and Wildlife Service • Endangered Species Program, Washington, D.C. 20240

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR

October 1977, Vol. II, No. 10

Don D. Bridgwater, Director
Minnesota Zoological Gardens
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PF372

FY78 Expenses
10 November 1977

<u>Budget Item</u>	<u>Fiscal Year Budget</u>	<u>Liquidated To Date</u>	<u>Unliquidated Encumbrances</u>	<u>Expenditures To Date</u>
Operations:				
Salaries	\$29,650.00	\$10,348.73		\$10,348.73
Data processing(July-Sept)	14,000.00	783.38	\$ 2,124.17	2,907.55
Operations	(10,400.00)	(661.24)	(1,132.85)	(1,794.09)
Maintenance	(2,600.00)	(122.14)	(991.32)	(1,113.46)
Modifications	(1,000.00)			
Printing	3,000.00	39.66		39.66
Postage	2,450.00	396.37		396.37
Addressograph	50.00		15.00	15.00
Supplies	600.00	145.53		145.53
Repairs	100.00			
Misc.	100.00			
Travel	2,600.00	266.38	300.00	566.38
Equipment	400.00			
State Indirect Cost Billing	1,200.00			
SUBTOTAL OPERATIONS	\$54,150.00			\$14,419.22
Development:				
Data Processing(July-Sept)				
Phys. Norms ISD	\$ 8,000.00	\$ 145.00	\$ 2,821.47	\$ 2,966.47
U of M	1,000.00			
Studbook/Ped/Demog.				
ISD	9,000.00	806.17	2,797.14	3,603.31
U of M			81.96	81.96
Printing (Taxonomy)-Birds	2,500.00		2,500.00	2,500.00
(Taxonomy)-Herps	2,500.00			
Consultants				
Studbook/Pedigree	2,000.00			
Other	1,000.00			
Linda Murtfeldt		192.00		192.00
Gale Ikola-Graphics (Contract for \$759.50)				
SUBTOTAL DEVELOPMENT	\$26,000.00			\$ 9,343.74
TOTAL PROJECTED EXPENSES FISCAL YEAR 1978	\$80,150.00		EXPENDITURES TO DATE	\$23,762.96

FY78 Income

10 November 1977

<u>Source</u>	<u>Anticipated Receipts</u>	<u>Year to Date Receipts</u>
1976 Zoo Participation Fees Paid in FY78	\$ 3,000.00	\$ 3,044.11
1977 Zoo Participation Fees	26,000.00	9.00
USDI	10,000.00	
Special Demand Reports	500.00	340.00
Directories	500.00	370.00
Misc. Contributions	100.00	145.00
FY77 Surplus Reset in FY78	<u>11,600.00</u>	Est. <u>11,600.00</u>
Income	\$51,700.00	\$15,508.11

MAJOR SOURCES OF INCOME

		<u>TO DATE</u>		<u>ADDITIONAL FUNDS COMMITTED</u>
USDI	May 1974	\$10,000.00		Oct 1977 \$10,000.00
	Jan 1975	20,000.00		Oct 1978 <u>10,000.00</u>
	July 1976	10,000.00		
	Oct 1976	10,000.00		\$20,000.00
	Nov 1976	<u>15,000.00</u>		
			\$65,000.00	
AAZPA	Feb 1974	\$ 2,500.00		
	Oct 1974	10,000.00		
	1976	6,000.00		
	1977	<u>4,817.00</u>		
		\$23,317.00		
AAZV	July 1974	\$ 1,000.00		
	Dec 1974	3,500.00		
	1976	<u>2,000.00</u>		
		\$ 6,500.00		
SAMS Foundation	Nov 1973	<u>\$10,000.00</u>		
		\$10,000.00		
Frankel Foundation	Feb 1974	\$ 3,500.00		
	July 1974	5,000.00		
	June 1975	2,000.00		
	Sept 1975	<u>3,000.00</u>		
		\$13,500.00		
Zoos	1974 Fee	\$14,495.00		1977 Fees \$26,000.00
	1975 Fee	22,044.00		
	1976 Fee	<u>24,458.00</u>		
		\$60,997.00		

AAZPA ISIS PROGRAM

ANNUAL REPORT

22 August, 1977

To:

OFFICERS AND DIRECTORS

of the

AMERICAN ASSOCIATION OF ZOOLOGICAL PARKS AND AQUARIUMS

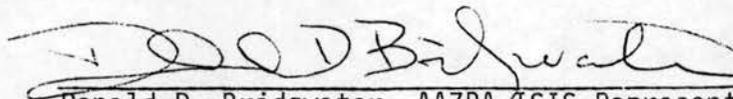
From:

DONALD D. BRIDGWATER
AAZPA ISIS REPRESENTATIVE
and

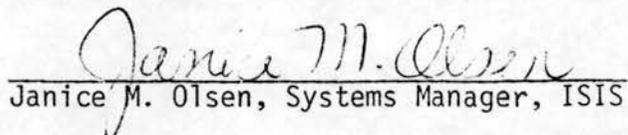
JANICE M. OLSEN
SYSTEMS MANAGER, ISIS
MINNESOTA ZOOLOGICAL GARDEN
12101 JOHNNY CAKE RIDGE ROAD
APPLE VALLEY, MINNESOTA 55124

HEREIN IS PRESENTED A SUMMARY OF ACTIVITIES,
SUPPORTING DATA AND RECOMMENDATIONS FOR ACTION
WITH RESPECT TO THE AAZPA-ISIS PROGRAM

Respectfully submitted:



Donald D. Bridgwater, AAZPA-ISIS Representative



Janice M. Olsen, Systems Manager, ISIS

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I. INTRODUCTION

This document comprises the annual AAZPA-ISIS program report to the officers and directors of the American Association of Zoological Parks and Aquariums. The period covered is from 3 September 1976 to 22 August 1977.

II. CURRENT ORGANIZATION

A. Structure

Following the 1976 AAZPA annual meeting, the AAZPA-ISIS Committee and its substructure was dissolved by the AAZPA Board. Chairman Donald B. Bridgwater was appointed AAZPA-ISIS Representative and placed as a nonvoting representative on the new Wildlife Conservation and Management Committee. There were no communications issued relative to this action or as to how ISIS was to relate to the WCMC. A series of phone calls and correspondence between President Hubbell, Executive Director Robert Wagner, WCMC Chairman Dennis Meritt and Donald Bridgwater charted an interim course of action as follows:

1. The ISIS letterhead would include the words "A program of the American Association of Zoological Parks and Aquariums."
2. Donald Bridgwater would periodically (depending on volume) send copies of pertinent correspondence to Dennis Meritt for his information.
3. All reports, papers or related materials which discuss policy or publicly represent AAZPA-ISIS would be sent to Dennis Meritt for review and forwarded to appropriate parties.
4. For purposes of identification, Donald Bridgwater would sign all correspondence as "AAZPA-ISIS Representative".
5. Queries or concerns regarding ISIS by the Conservation Committee or members of the Board would be directed to Donald Bridgwater immediately for solution.

Subsequently, a mid-year report was given to the AAZPA Board in Washington, D.C. At that time, an additional \$4,817.00 was provided to accompany \$6,000.00 provided in January for development of Phase I of the Studbook and Pedigree Analysis Subsystem.

Much discussion on the operation, capabilities, and AAZPA-ISIS relationship took place. Most significant was the need to re-establish an effective and operational AAZPA-ISIS structure. President Hubbell appointed and charged Bob Wagner, in concert with Dennis Meritt, Don Farst and Don Bridgwater, to develop recommendations for consideration in September, 1977. To date, no action has been initiated.

Other recommendations included:

1. Encouragement of member institutions to submit data and pay fees.
2. Assist in securing new development funds.
3. Nominate out-going Systems Manager, Linda Murtfeldt, for an appropriate AAZPA award.

In February, 1977 an ISIS Control Group was formed and began bi-monthly meetings covering a standing agenda. Members of this group include Janice M. Olsen, ISIS Systems Manager and Chairman, ISIS Control Group; Donald D. Bridgwater, AAZPA-ISIS Representative; Kim Hastings, ISIS Data Processor; Leaura Pratt, ISIS Clerk-Typist; U.S. Seal, PhD., ISIS Co-founder; Dale G. Makey, PhD., ISIS Co-founder; Nathan Flesness, ISIS Consultant for Studbooks and Pedigree Analysis; and Paul Scobie, ISIS Consultant for Physiological Norms. The purpose of this group is to review on a regular basis the day-to-day operations of ISIS, including budgets, schedules, development programs, special problems, and related matters.

B. Staffing

In April, 1977, Janice M. Olsen, ISIS Development Coordinator, assumed the position of Systems Manager, ISIS, supported by the ISIS budget. She is responsible, with review and support from the ISIS Control Group, for general program supervision and management of funds, activities and operations. Kim Hastings provides data processing and clerical support for ISIS and is supported by the ISIS budget. Leaura Pratt, funded for one year through the CETA Program, provides full time clerical support for ISIS. Supported by the ISIS budget on part time contracts are Dale G. Makey, PhD., Systems Analysis Consultant; Nate Flesness, Programming Consultant for Studbook and Pedigree Analysis; and Paul Scobie, Programming Consultant for Physiological Norms.

C. Other Support Elements

Final responsibility for financial and policy matters rests with Donald D. Bridgwater, Director, Minnesota Zoological Garden. Mr. Bridgwater is also responsible for AAZPA-ISIS communications in his role as AAZPA-ISIS Representative.

Computer services are supplied by the Information Systems Division (ISD) of the State of Minnesota Department of Administration and by the University of Minnesota Computer System. All costs incurred are paid from the ISIS budget.

In addition, numerous individuals and organizations voluntarily give advice, review programs and make recommendations. Co-founders U. S. Seal and Dale G. Makey continue to give enormous quantities of time to the program.

III. PROGRAM AND OPERATIONS

A. General Statement

ISIS is divided into eight functional areas: 1) Mammalian Inventory; 2) Bird Inventory; 3) Reptile and Amphibian Inventory; 4) Fish Inventory; 5) Studbooks/Pedigree Analysis; 6) Physiological Norms; 7) Life Histories and 8) International Expansion.

B. Program Description, Schedules, and Operations

1. Mammal Inventory

The system has been operational for three years. 110 North American and European zoos are participating. These include 92 zoos paying the 1976 participation fees, 8 who have not paid and 10 new institutions. Of these 100 institutions, 84 are actively submitting data.

2. Bird Inventory

The Semiannual ISIS Species Distribution Report lists 7,751 living birds in the inventory. Data forms are being received from many participants now entering bird inventories, so this area is undergoing continuing growth. Revisions requested by reviewers of the ISIS Avian Taxonomy, Part II, are currently underway and the directory should be available this fall. (Participation is as indicated for mammals in Section B-1 above.)

3. Reptile and Amphibian Inventory

Development of the directory has begun through the volunteer efforts of U.S. Seal. Extensive literature collection, review, code assignments and editing should begin in January 1978. Some funds are currently available and if additional funding is provided, the directory could be available as early as July 1978.

4. Fish Inventory

A framework taxonomic directory is proposed complete to the family level. Within this framework, only those genera and species on Endangered lists or those of recommended exhibit interest would be listed. The system would allow additions as needed. Some funds are currently available and if additional funding is provided, the directory could be available in early 1979.

5. Studbooks/Pedigree Analysis

This area has been given an urgent priority and development is well underway. Pertinent papers by Nate Flesness and Tom Foose appear in Vol. 17 of the International Zoo Yearbook. When complete, this system will allow the development of pedigree, demographic, and genetic analysis for any species for which sufficient data is available. Such information can then be used to develop long-term breeding programs, identify predictable and desirable end products and supply a statistical basis for both taking or reintroduction schemes for endangered species. The system can incorporate current studbooks and has the potential to produce studbooks from data present in the ISIS Inventory Files. Nearly all studbook keepers have indicated a willingness to supply data and use the system. The Survival Service Commission, the Department of the Interior, and numerous concerned breeders both here and abroad have expressed hope that such a system can be developed. It is perhaps the most significant end product of the ISIS programs.

Initial seed money has been provided by the Minnesota Zoological Garden. Five other zoos have contributed \$100.00 each. The AAZPA has contributed \$10,817.00 in ISIS Fiscal Year 1977, to fund the first phase of this project. The development costs of this program are sizable and additional funding of \$11,000 is required.

6. Physiological Norms

This system is being developed with the support of the American Association of Zoo Veterinarians (AAZV) and several private foundations. It will permit the determination of statistical norms for a variety of laboratory tests and will provide clinical data on individual animals. Programming is proceeding, much data has been collected on a trial run basis, and the system should be fully operational in January, 1978. The AAZV provided \$2000.00 in February, 1977 toward program development. An additional \$9000.00 is required to make the program operational.

7. Life Histories

All development of this system has been postponed until all other systems are fully operational. Substantial funding will be required.

8. International Expansion and Coordination

International expansion continues, with the participation of the Rotterdam Zoo, Copenhagen Zoo, Zoological Society of London, the Jersey Wildlife Preservation Trust, and the Seafloor Aquarium, Nassau, Bahamas.

IV. PARTICIPATION

The following tables indicate both the type of participation and the financial support provided by institutions that have signed ISIS participation agreements. Payment or non-payment of 1974, 1975 and 1976 Participation Fees is indicated. The extent of participation is designated by the following codes:

- 0 - No data submitted
- 1 - Data either incomplete or not recently updated
- 2 - Update annually
- 3 - Update regularly
- 4 - Entering only portion of inventory

Table 1 includes all participants who have paid the 1976 Participation Fee as of 22 August 1977.

Table 2 includes all participants who have not yet paid the 1976 Participation Fee.

Table 3 lists new or recently active participants.

Table 4 lists former participants who have terminated their involvement in ISIS.

Letters of inquiry and second invoices have been sent to all unpaid participants who update regularly or annually. The remaining participants will be contacted, as time permits, to ascertain the reasons for inactivity.

TABLE 1

ISIS PARTICIPANTS - 1976 FEE PAID by 22 August 1977

PAID			CODE	
7	4	7576		
✓	✓	✓	1	Arizona - Sonora Desert Museum, Tucson, Arizona
✓	✓	✓	3	Assiniboine Park Zoo, Winnipeg, Manitoba, Canada
✓	✓	✓	1	Atlanta Zoological Park, Atlanta, Georgia
✓	✓	✓	3	Baltimore Zoo, Baltimore, Maryland
✓	✓	✓	3	Beardsley Zoological Gardens, Bridgeport, Connecticut
✓	✓	✓	3	Birmingham Zoo, Birmingham, Alabama
✓	✓	✓	3	Buffalo Zoological Gardens, Buffalo, New York
✓	✓	✓	3	Burnet Park Zoo, Syracuse, New York
		✓	3	Busch Gardens, Tampa, Florida
	✓	✓	2	Caldwell Children's Zoo, Tyler, Texas
✓	✓	✓	3	Calgary Zoo and Natural History Park, Calgary, Alberta, Canada
		✓	1	Cen-tex Zoo, Waco, Texas
		✓	3	Cheyenne Mt. Zoo, Colorado Springs, Colorado
✓	✓	✓	3	Chicago Zoological Park, Brookfield, Illinois
✓	✓	✓	3	Zoological Society of Cincinnati, Cincinnati, Ohio
✓	✓	✓	3	Cleveland Aquarium, Cleveland, Ohio
	✓	✓	3	Cleveland Zoological Park, Cleveland, Ohio (METROPARKS)
✓	✓	✓	3	Cole Park Zoo, Midland, Texas
✓	✓	✓	3	Columbia Zoological Park, Columbia, South Carolina (Riverbanks)
	✓	✓	1	Crandon Park Zoological Garden, Key Biscayne, Florida
	✓	✓	2	Denver Zoological Gardens, Denver, Colorado
✓	✓	✓	2	Dickerson Park Zoo, Springfield, Missouri
	✓	✓	1	Dreher Park Zoological Gardens, West Palm Beach, Florida
✓	✓	✓	3	Duke University Primate Facility, Durham, North Carolina
	✓	✓	2	Duluth Zoo, Duluth, MN
	✓	✓	1	Ellen Trout Park Zoo, Lufkin, Texas
✓	✓	✓	1	El Paso Zoological Park, El Paso, Texas
✓	✓	✓	3	Erie Zoo, Erie, Pennsylvania
✓	✓	✓	3	Fort Wayne Children's Zoological Gardens, Fort Wayne, Indiana
	✓	✓	3	Fort Worth Zoological Park, Fort Worth, Texas
	✓	✓	0	Gilbert, Mr. & Mrs. Frank H., Phoenix, Arizona
✓	✓	✓	3	Gladys Porter Zoo, Brownsville, Texas
✓	✓	✓	3	Glen Oak Zoo, Peoria, Illinois
	✓	✓	3	The Greater Baton Rouge Zoo, Baton Rouge, Louisiana
✓	✓	✓	3	Henry Doorly Zoo, Omaha, Nebraska
	✓	✓	1	Henry Vilas Park Zoo, Madison, Wisconsin
	✓	✓	1	Hogle Zoological Garden, Salt Lake City, Utah
	✓	✓	3	Houston Zoological Gardens, Houston, Texas
✓	✓	✓	3	Jackson Zoological Park, Jackson, Mississippi
	✓	✓	3	Jacksonville Zoological Park and Society, Jacksonville, Florida
✓	✓	✓	3	Jardin Zoologique de Quebec, Quebec, Canada
✓	✓	✓	3	Kansas City Zoological Gardens, Kansas City, Missouri
		✓	3	Kings Dominion (Lion Country Safari), Doswell, Virginia
	✓	✓	3	Knoxville Zoological Park, Knoxville, Tennessee
	✓	✓	0	Las Vegas Valley Zoo, Las Vegas, Nevada
		✓	1	Lee Richardson Zoo, Garden City Kansas
	✓	✓	2	Lincoln Municipal Zoo, Lincoln, Nebraska
	✓	✓	3	Lincoln Park Zoo, Chicago, Illinois
✓	✓	✓	3	Los Angeles Zoo, Los Angeles, California
	✓	✓	3	Milwaukee County Zoo, Milwaukee, Wisconsin
✓	✓	✓	3	Minnesota Zoological Garden, Apple Valley, Minnesota
✓	✓	✓	3	Montgomery Zoo, Montgomery, Alabama

ISIS PARTICIPANTS - 1976 FEE PAID by 22 August 1977 (Cont)

PAID			CODE	
7	4	7	5	76
✓	✓	✓	3	National Zoological Park, Washington, D.C.
✓	✓	✓	3	National Zoological Park Conservation Center, Front Royal, Virginia
✓	✓	✓	3	National Zoological Parks Office of Zoological Research, Wash. D.C.
✓	✓	✓	3	Natural Science Center, Greensboro, North Carolina
✓	✓	✓	0	New England Aquarium, Boston, Massachusetts
✓	✓	✓	3	New York Zoological Society, Bronx, New York
✓	✓	✓	3	N.Y. Society St. Catherines Survival Center, St. Catherines Island, GA.
✓	✓	✓	0	North Carolina Zoological Park, Asheboro, North Carolina
✓	✓	✓	2	Oklahoma City Zoo, Oklahoma City, Oklahoma
✓	✓	✓	3	Philadelphia Zoological Garden, Philadelphia, Pennsylvania
✓	✓	✓	2	Pocono Wild Animal Farm, Stroudsburg, Pennsylvania
✓	✓	✓	3	Portland Zoological Gardens, Portland, Oregon (WASHINGTON PARK ZOO)
✓	✓	✓	3	Ralph Mitchell Zoo, Independence, Kansas
✓	✓	✓	3	Randolph Park Zoo, Tucson, Arizona
✓	✓	✓	2	Rio Grande Zoo, Albuquerque, New Mexico
✓	✓	✓	0	Roeding Park Zoo, Fresno, California
✓	✓	✓	1	Roosevelt Park Zoo, Minot, North Dakota
✓	✓	✓	3	St. Louis Zoological Park, St. Louis, Missouri
✓	✓	✓	1	St. Paul's Como Zoo, St. Paul, Minnesota
✓	✓	✓	3	The Salisbury Zoo, Salisbury, Maryland
✓	✓	✓	2	San Antonio Zoological Gardens, San Antonio, Texas
✓	✓	✓	3	San Diego Wild Animal Park, San Diego, California
✓	✓	✓	3	San Diego Zoological Gardens, San Diego, California
✓	✓	✓	1	Santa Barbara Zoological Gardens, Santa Barbara, California
✓	✓	✓	3	Santa Fe Community College Teaching Zoo, Gainesville, Florida
✓	✓	✓	0	The Seattle Aquarium, Seattle, Washington
✓	✓	✓	3	Segwick County Zoo, Wichita, Kansas
✓	✓	✓	3	Seneca Park Zoo, Rochester, New York
✓	✓	✓	3	John G. Shedd Aquarium, Chicago, Illinois
✓	✓	✓	2	South Bend Zoo (POTAWATOMI PARK), South Bend, Indiana
✓	✓	✓	3	Stichting Koninklijke Rotterdamse Diergaarde, Rotterdam, Netherlands
✓	✓	✓	1	Terry Lou Zoo, Scotch Plains, New Jersey
✓	✓	✓	3	Topeka Zoological Park, Topeka, Kansas
✓	✓	✓	3	Metro Toronto Zoo, West Hill, Ontario
✓	✓	✓	3	Turtle Back Zoo, West Orange, New Jersey
✓	✓	✓	3	Tulsa Zoo, Tulsa, Oklahoma
✓	✓	✓	0	Vancouver Public Aquarium, Vancouver, British Columbia
✓	✓	✓	3	Walt Disney World, Lake Buena Vista, Florida
✓	✓	✓	2	Wild Canid Survival and Research Center, St. Louis, Missouri
✓	✓	✓	1	Woodland Park Zoological Gardens, Seattle, Washington

TABLE 2

ISIS PARTICIPANTS - 1976 FEE UNPAID

PAID		CODE	
7475	76		
		1	African Lion Safari, Rockton, Ontario, Canada
✓		0	African Lion Safari, Port Clinton, Ohio (INTERNATIONAL ANIMAL EXCHANGE)
✓		1	Akron Children's Zoo, Akron, Ohio
		0	Alabama-Coachatta Indian Reservation, Livingston, Texas
✓		0	Alexander Lindsay Junior Museum, Walnut Creek, California
		0	Alexandria Zoological Park, Alexandria, La.
		0	Amarillo Zoological Society, Amarillo, Texas
		0	Amigita Grande Ranch, Houston, Texas
		0	Aqua Circus - Aquarium of Cape Cod, West Yarmouth, Massachusetts
✓		0	Audubon Park, New Orleans, Louisiana
		0	Bear Country, U.S.A., Rapid City, South Dakota
		0	Big Bell Ranch, Eads, Tennessee
		0	Boise City Zoo, Boise, Idaho
✓		3	Boston Zoological Society, Dorchester, Massachusetts
		0	Warren E. Buck, Glendora, New Jersey
✓		1	Busch Gardens, L.A., Van Nuys, California
		1	Buttonwood Zoo, New Bedford, Massachusetts
		0	Catoctin Mountain Zoological Park, Thurmont, Maryland
		0	Cedar Bluff Aquarium, Ellis, Kansas
✓		2	Cohanzick Zoo, Bridgeton, New Jersey
		1	Columbus Zoological Gardens, Powell, Ohio
		0	Conservatory - Aviary, West Pittsburgh, Pennsylvania
		1	Dallas Zoo, Dallas, Texas
		1	Detroit Zoological Park, Royal Oak, Michigan
		1	Elmwood Park Zoo, Norristown, Pennsylvania
✓		1	Endangered Wildlife Research Program, Patuxent Center, Laurel, Maryland
		0	Forest Park Zoo, Springfield, Massachusetts
		0	Fort Clark Zoo Farm, Brackettville, Texas
		1	Great Plains Zoo, Sioux Falls, South Dakota
✓	✓	3	Highland Park Zoo, Highland Park, Pittsburgh, Pennsylvania
		0	Inland Empire Zoo, Spokane, Washington
✓	✓	3	Kemper Zoological Park, Hattiesburg, Mississippi
✓	✓	1	Lafayette Zoological Park, Norfolk, Virginia
✓	✓	1	Lincoln Children's Zoo, Lincoln, Nebraska
		0	Little Rock Zoo, Little Rock, Arkansas
		0	Living Desert Reserve, Palm Desert, California
✓		2	Louisville Zoological Garden, Louisville, Kentucky
		0	Lummis Livestock Co., Cheyenne, Wyoming
		0	Marineland of the Pacific, Rancho Palos Verdes, California
✓	✓	1	Marriott's Great America, Gurnee, Illinois
✓		3	Mesker Park Zoo, Evansville, Indiana
		0	Miami Seaquarium, Miami, Florida
✓	✓	1	Miller Park Zoo, Bloomington, Illinois
✓		0	Mystic Marineland Aquarium, Mystic, Connecticut
		0	National Aquarium, Washington, D.C.
		0	Olympic Game Farm, Sequim, Washington
		1	Opryland, U.S.A., Nashville, Tennessee
		0	Oxbow Park Zoo, Rochester, Minnesota

ISIS PARTICIPANTS - 1976 FEE UNPAID (CONT)

PAID		CODE	
747576			
		0	Parque Zoologico National, Santo Domingo, Dominican Republic
		0	Rancho Gango Musk Ox Farm, Hughenden, Alberta, Canada
		0	Research Ranch, Elgin, Arizona
		0	Rock Island Co., Niabi Zoological Preserve, Moline, Illinois
✓		2	Roger Williams Zoo, Providence, Rhode Island
		0	Ross Park Zoo, Binghamton, New York
		0	Safari Animal Country, Inc., Northumberland, New York
✓		3	San Francisco Zoo, San Francisco, California
		0	Scripps Aquarium, La Jolla, California
		0	Sea Life Park, Waimanalo, Hawaii
✓		0	Snyders Darien Lake Zoo, Corfu, New York
		1	Southwest Zoological Gardens, Mangum, Oklahoma
		0	Spring Creek Animal Farm, Elko, Nevada
		0	Stanislaus Zoological Society, Modesto, California
		0	Staten Island Zoo, Staten Island, New York
		0	Sunset Zoo, Manhattan, Kansas
		0	Toledo Zoological Gardens, Toledo, Ohio
		0	Trailside Museums, Bear Mountain, New York
✓		1	Utica Zoo, Utica, New York
		0	Ven-Am Research Center, Cache, Oklahoma
		0	Vollrath Park Zoo, Sheboygan, Wisconsin
✓	✓	2	Wolf Park, Battle Ground, Indiana
✓		0	World Wildlife Safari, Winston, Oregon
		0	Zoo St. Felicien, St. Felicien, Quebec, Canada

TABLE 3

"NEW" 1977 PARTICIPANTS

PAID		CODE	
74	75		
✓		0	Abilene Zoological Gardens, Abilene, Texas (rejoined)
		3	Copenhagen Zoologisk Have, Copenhagen, Denmark
		4	Zoological Society of London, London, England
		0	Honolulu Zoo, Honolulu, Hawaii
		0	Jersey Wildlife Preservation Trust, Channel Islands, British Isles
		0	Kings Island, Kings Mills, Ohio
		3	Nature Center, Asheville, North Carolina
		3	Racine Zoological Park, Racine, Wisconsin (activated participation)
✓		3	Sacramento Zoo, Sacramento, California
		3	Seafloor Aquarium, Nassau, Bahamas

TABLE 4

DROPPED FROM ISIS

PAID		CODE	
74	75		
		0	Brookgreen Gardens, Murrells Inlet, South Carolina
		0	Dakota Zoological Society, Inc., Bismarck, North Dakota
		0	City Park Zoo, Iowa City, Iowa
		0	Granby Zoological Society, Granby, Quebec, Canada
		0	Indianapolis Zoological Society Inc., Indianapolis, Indiana
		0	Jungle Larry's African Safari, Naples, Florida
		1	Knowland Park Zoo, Oakland, California
		0	Long Island Game Farm, Inc., Manorville, New York
		1	Okanagan Game Farm, Penticton, British Columbia
		1	Overton Park Zoo and Aquarium, Memphis, Tennessee
✓	✓	1	The Phoenix Zoo, Phoenix, Arizona
		1	T. Rowell, Primate Research, Univ. of Calif., Berkeley, California
		0	Storyland Valley Zoo, Edmonton, Alberta, Canada
		1	Warner Bros. Jungle Habitat, West Milford, New Jersey
		0	The Wildlife Preserve, Largo, Maryland
✓	✓	✓	0 National Marine Fisheries Service Aquarium, Woods Hole, Mass.

V. BUDGETS

In this annual report, budgets have been reset to follow a fiscal year July 1 to June 30 as opposed to the earlier calendar year presentations.

Table 5 shows ISIS Income in Fiscal Year 1977 (1 July 1976 - 30 June 1977)

Table 6 shows ISIS Expenses for Fiscal Year 1977 (1 July 1976 - 30 June 1977)

Table 7 shows Projected ISIS Income in Fiscal Year 1978 (1 July 1977 - 30 June 1978)

Table 8 shows Projected ISIS Expenses for Fiscal Year 1978 (1 July 1977 - 30 June 1978)

In Fiscal Year 1977, income from participation fees totaled \$26,671.70 while operating expenses totaled \$45,096.39 -- leaving a deficit of \$18,424.69 which had to be made up from funds designated for development. Participation fees covered only 60% of the operating expenses in this period.

In Fiscal Year 1978, operating expenses are estimated to be \$54,150.00 while the combined income from late payment of 1976 fees and timely payment of the 1977 participation fees (based on current zoo responses) is estimated to be only \$29,000.00 -- leaving a deficit of \$25,000.00.

In summary, current and potential income from participation fees, based on past performance, will cover 60% of the ISIS operating expenses. Additional funds are required either from:

1. Increased financial participation from signed member institutions.
2. Changes in rate structure.
3. Financial subsidy from private individuals, foundations, institutions, or user agencies.

TABLE 5
 ISIS INCOME - FISCAL YEAR 1977
(1 July 1976 - 30 June 1977)

<u>Source</u>	<u>Receipts</u>
1975 Zoo Participation Fees (Paid in Fiscal Year 1977)	5,258.00
1976 Zoo Participation Fees (Paid in Fiscal Year 1977)	21,413.70
USDI 30 July 1976	10,000.00
14 October 1976	10,000.00
29 November 1976	15,000.00
Minnesota Zoological Society	100.00
AAZV	2,000.00
AAZPA	10,817.00
Studbook Contribution	100.00
Special Demand Reports	210.00
Directories	435.01
Miscellaneous Contributions	163.45
Fiscal Year 1975 Surplus Reset in Fiscal Year 1977	160.63
Fiscal Year 1976 Surplus Reset in Fiscal Year 1977	<u>3,528.81</u>
 TOTAL ISIS INCOME - FISCAL YEAR 1977	 <u><u>\$79,186.60</u></u>

TABLE 6
 ISIS EXPENSES - FISCAL YEAR 1977
(1 July 1976 - 30 June 1977)

<u>Budget Item</u>	<u>Detail</u>	<u>Total</u>
Operations:		
Salaries and Fringe Benefits		26,392.60
Systems Manager	14,526.00	
Data Entry Operator	8,276.10	
Fringe Benefits	3,590.50	
Data Processing		12,058.54
Operations	8,620.44	
Maintenance	2,182.14	
Modification of Report Format	1,255.96	
Printing (forms, stationary, miscellaneous)		2,885.68
Postage		1,937.26
Addressograph		32.79
Supplies		403.97
Repairs		92.70
Miscellaneous		15.43
Travel		264.42
State Indirect Cost Billing		<u>1,013.00</u>
SUBTOTAL ISIS OPERATIONS EXPENSES		45,096.39
Development:		
Data Processing		14,257.63
Physiological Norms	1,572.23	
Studbook/Pedigree Analysis	12,685.40	
Printing (Taxonomy)		3,059.89
Consultants		5,170.50
Graphics Arts	70.50	
Physiological Norms	2,900.00	
Studbook/Pedigree Analysis	2,200.00	
SUBTOTAL ISIS DEVELOPMENT EXPENSES		<u>22,488.02</u>
TOTAL ISIS EXPENSES - FISCAL YEAR 1977		<u>\$67,584.46</u>

TABLE 7
 ISIS PROJECTED INCOME - FISCAL YEAR 1978
 (1 July 1977 - 30 June 1978)

<u>Source</u>	<u>Anticipated Receipts</u>
1976 Zoo Participation Fees Paid in Fiscal Year 1978 (\$1,665.81 received to date)	3,000.00
1977 Zoo Participation Fees (Estimate based on current rates: \$1.00 per mammal, \$.35 per bird)	26,000.00
USDI	10,000.00
Special Demand Reports	500.00
Directories	500.00
Miscellaneous Contributions	100.00
Fiscal Year 1977 Surplus Reset in Fiscal Year 1977	<u>11,600.00</u>
TOTAL PROJECTED INCOME - FISCAL YEAR 1978	<u><u>\$51,700.00</u></u>

Additional funds required to balance budget through 30 June 1978	\$28,450.00
---	-------------

TABLE 8
 ISIS PROJECTED EXPENSES - FISCAL YEAR 1978
 (1 July 1977 - 30 June 1978)

<u>Budget Item</u>	<u>Detail</u>	<u>Total</u>
Operations:		
Salaries and Fringe Benefits		29,650.00
Systems Manager	15,900.00	
Data Entry Operator	9,100.00	
Fringe Benefits	4,650.00	
Data Processing		14,000.00
Operations (20% increase)	10,400.00	
Maintenance	2,600.00	
Modifications	1,000.00	
Printing (forms, stationary, miscellaneous)		3,000.00
Postage		2,450.00
Addressograph		50.00
Supplies		600.00
Repairs		100.00
Miscellaneous		100.00
Travel		2,600.00
Equipment		400.00
State Indirect Cost Billings		<u>1,200.00</u>
SUBTOTAL PROJECTED OPERATIONS EXPENSES		54,150.00
Development:		
Data Processing		18,000.00
Physiological Norms	9,000.00	
Studbook/Pedigree Analysis	9,000.00	
Printing (Taxonomy)		5,000.00
Consultants		3,000.00
Studbook/Pedigree Analysis	2,000.00	
Other	1,000.00	
SUBTOTAL PROJECTED DEVELOPMENT EXPENSES		<u>26,000.00</u>
TOTAL PROJECTED EXPENSES - FISCAL YEAR 1978		<u>\$80,150.00</u>

VI. RECOMMENDATIONS AND SUMMARY

A review of the information contained in the body of this report indicates a number of areas of both progress and concern relative to the International Species Inventory System operation.

The primary objective is, and should continue to be, the development of the international census of animals in captivity including mammals, birds, reptiles, amphibians and fish. Data continues to flow in and a rhythm of regular updating is being established. There is still an urgent need for members that have signed up to pay fees and to begin active data submission in order to make the ISIS system even more effective. Beyond this, the development of a working studbook and pedigree analysis subsystem continues to be a second priority. The physiological norms subsystem is developing a pace with the support of the American Association of Zoo Veterinarians and is proceeding on schedule with additional funding needed to make it operational.

International expansion is proceeding well while the life histories system is still being postponed until other systems are operational.

An analysis of the Budgets section shows that at the present time, only 60% of the day-to-day ISIS operating expenses is covered through subscriptions. This year, after long subsidy and support by the Minnesota Zoological Garden, the salaries of the Systems Manager was shifted to the operational income from ISIS. This, along with some miscellaneous expenses and program updating, indicates that in Fiscal Year 1978 there could be an estimated deficit of some \$25,000. In the summary paragraph on page 11, sources of additional funds are identified.

The primary problem continues to be one of working relationships and understandings amongst member institutions and the AAZPA Board relative to what ISIS is, what it can do, what it could do if properly supported.

Since the dissolution of the Computer Data Committee for AAZPA-ISIS Committee there has become an increasing polarization relative to this entire problem. During the Mid-Year Board Meeting, President Hubbell did appoint a committee under the coordination of Bob Wagner including Don Farst, Dennis Meritt and Don Bridgwater, to attempt to develop a working relationship for review in San Diego in September. To date, this has not been done. Therefore, the primary recommendation from this report is that this group actively meet in an attempt to develop a set of recommendations for operation during the coming AAZPA year. Areas which need exploration are the following: 1) AAZPA-ISIS working relationship; 2) funding provisions; 3) clear definitions of ISIS capabilities; 4) the identification of agreed-upon programs which can be written and generated on instant recall for AAZPA purposes; 5) logical fee and support structures.



American Association of Zoological Parks and Aquariums

EXECUTIVE OFFICES AT OGLEBAY PARK, WHEELING, W. VA. 26003 AREA CODE 304 - 242-2160

October 3, 1977

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Sacramento, California 95822

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Cincinnati Zoo
Cincinnati, Ohio 45220

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Brownsville, Texas 78520

Past President
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Director
Crandon Park Zoo
Key Biscayne, Florida 33149

Executive Director
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Oglebay Park
Wheeling, West Virginia 26003

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Assistant Director
Denver Zoological Gardens
Denver, Colorado 80205

DENNIS A. MERITT, JR.
Assistant Director
Lincoln Park Zoological Gardens
Chicago, Illinois 60614

CHARLES H. HOESSLE
Deputy Director
St. Louis Zoological Park
St. Louis, Missouri 63110

SAUL L. KITCHENER
Director
San Francisco Zoological Gardens
San Francisco, California 94132

PAUL S. CHAFFEE, D.V.M.
Director
Roeding Park Zoo
Fresno, California 93728

ROLAND LINDEMANN
President
Catskill Game Farm, Inc.
Catskill, New York 12414

MEMO TO: WILLIAM E. MEEKER, EDWARD J. MARUSKA, DON D. FARST, D.V.M.,
DENNIS MERITT, JR., WILLIAM J. BOEVER, D.V.M., DON BRIDG-
WATER AND JAN OLSEN

FROM: ROBERT O. WAGNER, EXECUTIVE DIRECTOR

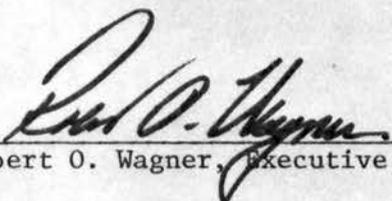
SUBJECT: ISIS MEETING TO BE HELD AT THE MINNESOTA STATE ZOOLOGICAL
GARDEN, NOVEMBER 14 and 15, 1977

Pursuant to the meeting held in San Diego on Saturday night, September 17, 1977, we will meet in Apple Valley, Minnesota on the above dates in an attempt to clarify the ISIS program with reference to services, programs and operating budget.

Don Bridgwater will host the meeting and will prepare a detailed working agenda. Don urges that each of us attempt to arrive on Sunday afternoon, November 13. We will have dinner on Sunday evening and get started as early as possible Monday morning. Don is certain that we can plan for a late afternoon/early evening departure on Tuesday. He also feels that we can have at least a brief visit to the Minnesota State Zoological Garden.

By virtue of receiving a copy of this memo, I am urging that William Boever, D.V.M., St. Louis Zoological Park, and President of the American Association of Zoo Veterinarians, attend this meeting because of the interest AAZV has in the ISIS program and the support they have given it in the past.

Please make your travel arrangements as early as possible and inform both Don and me of your itinerary. Don will make the necessary hotel reservations for us. Please mark your calendar now to attend this most important meeting.


Robert O. Wagner, Executive Director

ROW/ljb

Fri 2:30

Don:

Attached are all
my rough \$1.5 million
notes.

Jan

14. IDENTIFICATION OF APPLICANT ORGANIZATION

This application is submitted by ISIS (International Species Inventory System), an organization housed and supported in part by the Minnesota Zoological Garden, an agency of the State of Minnesota, and sponsored by the American Association of Zoological Parks and Aquariums. The official address for ISIS is: Minnesota Zoological Garden, 12101 Johnny Cake Ridge Road, Apple Valley, Minnesota 55124.

Background.

ISIS is the development of a proposal made to the board and membership of the American Association of Zoological Parks and Aquariums at their annual meeting in Houston, Texas in October 1973. (~~Appendix D~~) They adopted the proposal, provided some support, and recommended participation by all of their membership. (~~Appendix E~~) ISIS was charged with the responsibility of developing and maintaining vital statistics data for all captive vertebrate species. At this time 176 zoological institutions of the U.S.A., Canada, and Europe have agreed to participate. The same program and a subsystem designed to handle laboratory data for construction of physiological norms were presented to the American Association of Zoo Veterinarians at their annual meeting in Columbus, Ohio in November 1973. (Appendix F) They also adopted the proposal and provided some support. (~~Appendix G~~) Further financial support has been received from the Earl C. Sams Foundation; William V. Frankel Animal Preservation Foundation; the Office of Endangered Species, U.S. Fish and Wildlife Service, U.S. Department of the Interior; Animal Keepers Forum. Basic operational monies have come through zoo participation fees beginning with the year 1974.

Programs

The original purpose of ISIS was to collect, tabulate, and report vital statistics data as individual zoo inventories and a species distribution report of all captive exotic vertebrates. Such reports are essential for local management and also provide a major information source for zoos in their efforts to wisely maintain self-sustaining populations of exotic and endangered species in captivity over many generations. "



The ISIS - Veterinary Record program is another component of the complete animal care system. Physiological Norms summaries ~~for use in disease diagnosis in zoo animals given species and institution~~ ~~veterinary record summaries~~ can be produced for any species for which sufficient laboratory data has been collected. ~~The~~ Institution Veterinary Record Reports provide ^{detailed} physiological information about the specimens in each ~~inst~~ participating institution.

The ISIS Life History Program is a computerized record of ~~information~~ ^{data} concerning significant areas of an individual specimen's life in a zoo. ~~Data includes reproduction, animal husbandry~~ ~~Data on reproduction,~~ Data on courtship behavior, mating, reproduction, diet, enclosure conditions, social grouping, management procedures, growth statistics and general behavior are included.

Another ^{program} objective of ISIS is to provide information for strategic planning in the field of zoo population management. Wildlife resources are diminishing too rapidly to avoid the loss of some species if we depend simply upon the creation of parks or habitat management efforts. The data currently in the data base can be used for the development of models for captive gene pool management of individual species and possible re-establishment of populations into the wild. Such population management models ~~must~~ have both demographic and genetic components. The Demographic Models ~~will~~ provide general direction in terms of numbers, ages, and sexes of the individuals to be retained or removed from the population to attain or maintain some desired stability or growth. ~~They will~~ also indicate the number of progeny that should be produced in any interval of time and specify the number and ages of the individuals that are to be bred to produce these offspring. The Genetic Models ~~will~~ refine the demographic criteria by specifying which of the several available animals of the same age and sex, but different pedigrees are to be selected for retention, removal, or reproduction. The Genetic Models ~~will~~ make these determinations by planning for maximum genetic diversity of a population based on evaluation of pedigree data with respect to inbreeding coefficients and the risk of inbreeding.

^{as studied through use of}
~~To study~~ past inbreeding, a large FORTRAN program designed for human pedigree analysis (Maclean, 1969, in Computer Applications in Genetics) ~~has been~~ ^{which has been} acquired and modified for use with historical breeding data (studbooks). This ~~will~~ produces a measure of the inbreeding in the history of today's animals, an important consideration for future mating choices.

Such planning and simulation models will be used to implement what will be increasingly the management objectives for zoos: to produce and perpetuate a stationary captive population, and to provide surplus animals for other uses, especially programs of reintroduction into the wild. These models will have to serve as a testing ground for the management of the parks and wildlife preserves because it is unlikely that there will be time and opportunity to systematically test in the wild the various theories of optimum conservation practices for securing the preservation of many species in the wild.

~~the physiological management program~~

Letter of Intent Request

~~200,000~~
 #250,000 Computer, line printer, CRT, COBOL, FORTRAN
 Database Management System.

#50,000 conversion costs - of fully operational programs

~~Building \$500,000~~

#15,000 annual ^{computer + programs} maintenance

10,000 computer supplies

36,000 Custodial / Building Maintenance / Heat / Elect.

12,000 Office supplies, data forms, postage; phone, Xerox

Staff:

Computer operator	12,500 x 1.2 =	14,400	x 2	28,800
Data entry "	10,000 x 1.2 =	12,000	x 1	12,000
Clerical	10,000 x 1.2	12,000	x 2	24,000
Programmer/Analyst	20,000 x 1.2	24,000	x 1	24,000
Director/Prog/Analyst	25,000 x 1.2	30,000	x 1	30,000
				118,800
				31
				<u>145,800</u>

Consultants - as needed

Travel

Buildings - space req by function

1. Computer Room 900 sq ft
2. Data Entry 300
3. Office 400
4. Space office 300
5. Conference room 400
6. Storage 600
7. Restrooms 200
8. Heating/Mai 400
9. Foyer, hall, etc 500

4000 Sq. ft. - 1 story
 Cost \$2000,000

~~Equipment~~

\$50/sq. ft. in the Wash. D.C. area
 from Jerry Hegstorn

AGREEMENTS - Inventory, Phys. Mon., Staff, 1981, 1982
 Construction
 Captive Services

Program Conversion Costs.

A. Conversion from State of MN IBM 360-158 Computer to any computer with the following capabilities:

- 1) Minimum of ~~256~~ 128K Core.
- 2) 60 megabyte or greater disk storage
- 3) 9 track tape drive
- 4) Line Printer
- 5) CRT I/O Capability
- 6) COBOL & FORTRAN Capability
- 7) Data Base Management Software Package

B. Conversion of the existing COBOL & FORTRAN programs for Vital Statistics, Veterinary Records, Pedigree / Demography and Life History would be approximately \$50,000.

C. This conversion cost would apply to both a time sharing system and an ~~ISS~~ self owned computer system.

Configuration

Cost of an IBS Owned Computer System

A. Configuration

- 1. Minimum 128k memory - with expansion capability
- 2. Minimum 60 megabyte disk storage with expansion capability.
- 3. 9 Track magnetic tape storage
- 4. Real time interactive capability
- 5. Assembly, FORTRAN & COBOL language capability.
- 6. Minimum of 2 CRT's
- 7. Line Printer
- 8. Database Management Software
- 9. ~~See~~ Mass Sort Capabilities

B. Cost approximately \$225,000.00

Computer Operational Costs / Year

A. ISIS Owned System

1. System Maintenance	\$ 15,000.
2. Computer Supplies	\$10,000 5,000
3. Two Computer Operators	25,800
	<hr/>
	\$ 45,000

Also note that these cost do not cover computer and air conditioning power.

Please note that the system configured on page 2 is capable of remote communication to any point in the USA. However, the above cost ~~to~~ does not include data transmission costs. These costs would be comparable to costs incurred by voice grade long distance costs.

B. Time sharing

1. Real Time Interactive System

Annual operating cost is X5 of \$500,000

2. Batch Mode System

Cost not available at this time

Sunday 13 November

Agenda

Reservations at the Marriott Inn were made by Kim and confirmation has been received.

Transportation: No arrangements have been made.

Dinner: Time?
Place?
Participants?

Monday 14 November

AGENDA

Unless otherwise indicated, all sessions will be held in the Minnesota Zoological Garden Board Room.

- 8:00 Historical review (Don Bridgwater)
- 8:30 - 9:30 ISIS Systems Design (Dale Makey)
- 9:45 - 10:15 ISIS Data Processing Procedures (Jan Olsen)
- 10:30 - 11:30 Tour of ISIS Offices
- 11:45 - 1:00 Lunch
Lexington - reservations have not been made
Transportation?
- 1:15 - 2:00 ISD Tour (John Schwartz)
- 2:30 Policy Making Procedures (Don Bridgwater)
- 3:00 ISIS Development
Taxonomy (U.S. Seal)
- 3:15 Studbook/Pedigree/Demography (Nate)
- 4:15 Physiological Norms
(U.S. Seal background, Paul report detail)
- 7:00 Dinner - Beef and Brew - no reservations have been made.

Tuesday 15 November

AGENDA

8:00 Zoo Tour

10:00 Review Session (Jan Olsen)

Finances: review of income and expenses of the Mammal & Bird Inventory System, include discussion of participation fees, directory sales, special report fees, and indirect support.

Participants: who are they, what support do they provide, what services are available to them.

Presentation of AAZPA requests, criteria, critiques etc.

Presentation of AAZV requests, criteria, critiques etc.

Presentation of ISIS requests etc.

12:00 Lunch - sandwiches sent in

1:00 - 4:00 ISIS - AAZPA Relationships



Office Memorandum

DEPARTMENT _____

TO : Don D. Bridgwater

DATE: 20 October 1977

FROM : Kim Hastings, ISIS *Kim Hastings*

PHONE: #164 _____

SUBJECT: Reservations for the AAZPA Site Visit

Reservations have been made at the Marriott Inn for the following people:

Dennis Meritt - November 13 and 14.
Robert O. Wagner - November 13 and 14.
William Meeker - November 13, 14, and 15.
Dr. Don D. Farst - November 13, 14, and 15.
Edward Maruska - November 13, 14, and 15.
Dr. Robert Temple - November 13, 14, and 15.
(Note: AAZV reservation)

There is a complimentary limousine running every 15 minutes from the Airport (baggage claim) to the Marriott Inn.

Rates are \$31.00 per night.

Reservation Confirmations will be sent to me.

Marriott has been informed payment will be made by each individual.

cc: Janice M. Olsen



chicago park district

LESTER E. FISHER, D.V.M., Director
LINCOLN PARK ZOOLOGICAL GARDENS
2200 N. CANNON DRIVE, CHICAGO, ILLINOIS 60614
Phone: 294-4660

25 October 1977

Mr. DonBridgwater, Director
Minnesota Zoological Gardens
12101 Johnny Cake Road
Apple Valley, MN 55124

Dear Don:

I look forward to the upcoming meeting at your facility both to discuss ISIS and also to look at a new institution. All who have visited remarked about the scope and excellence of your zoo project.

From a personal standpoint I would very much like to find the time to see your Belugas and talk to your zoologist in charge. As you may be aware, I am a frustrated midwestern Cetacean observer. I will drop Austin McDevitt a note today "warning" him of my interests.

I hope your medical progress has been satisfactory and that you are feeling better. Please know that our collective thoughts and wishes are with you.

With personal wishes.

Sincerely,

Dennis

Dennis A. Meritt, Jr.
Assistant Director

DAM:af

cc: Jan Olson





American Association of Zoological Parks and Aquariums

EXECUTIVE OFFICES AT OGLEBAY PARK, WHEELING, W. VA. 26003 AREA CODE 304 - 242-2160

October 13, 1977

President
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Sacramento Zoo
Sacramento, California 95822

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EDWARD J. MARUSKA
Director
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Cincinnati, Ohio 45220

Vice-President
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Wheeling, West Virginia 26003

DIRECTORS

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Denver, Colorado 80205

DENNIS A. MERITT, JR.
Assistant Director
Lincoln Park Zoological Gardens
Chicago, Illinois 60614

CHARLES H. HOESSLE
Deputy Director
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St. Louis, Missouri 63110

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Fresno, California 93728

ROLAND LINDEMANN
President
Catskill Game Farm, Inc.
Catskill, New York 12414

MEMO TO: DON D. BRIDGWATER, DIRECTOR, MINNESOTA STATE ZOOLOGICAL GARDEN

FROM: ROBERT O. WAGNER, EXECUTIVE DIRECTOR

SUBJECT: ISIS MEETING, NOVEMBER 13, 14 & 15

I have made the following travel plans for the ISIS meeting to be held in your facility next month:

Arrive Minneapolis, Sunday, November 13,
United flight 765 at 5:04 p.m.
Depart Minneapolis, Tuesday, November 15,
United flight 626 at 5:55 p.m.

Please know that Dennis Meritt is arriving and departing on the same flights. We would appreciate your making the necessary hotel/motel reservations for us (a single room each) and advising us of your plans for the group on Sunday evening.

We are looking forward to seeing you and hope that this memo finds you feeling better.


Robert O. Wagner
Executive Director

ROW/ljb

Copies to: William E. Meeker
Don D. Farst, D.V.M.
Edward J. Maruska
William Boever, D.V.M.
Dennis A. Meritt, Jr.

ZOOLOGICAL SOCIETY OF CINCINNATI

3400 VINE STREET CINCINNATI, OHIO 45220 TELEPHONE 513 281-4700



CINCINNATI ZOO

October 19, 1977

Mr. Donald D. Bridgewater
Director
Minnesota State Zoological Garden
12101 Johnny Cake Road
Apple Valley, Minnesota 55124

Dear Don:

I have made the following flight arrangements for
the I.S.I.S. Meeting to be held at your Zoological Garden
November 13-15:

Leave Cincinnati 2:58 p.m. Nov. 13, Eastern Flight 290
Arrive Minneapolis 3:30 p.m.

Leave Minneapolis 5:00 p.m. Nov. 15, Northwest Flight 382
Arrive Chicago 6:08 p.m.

Leave Chicago 7:38 p.m., Delta Flight 181
Arrive Cincinnati 9:32 p.m.

Please make the necessary hotel/motel reservations
for me (a single room) and advise me if you have special
plans Sunday evening.

Kind regards,

Sincerely,

A handwritten signature in dark ink, appearing to read 'Ed'.

Edward J. Maruska
Director

EJM:kf

cc: Robert Wagner
William Meeker



American Association of Zoological Parks and Aquariums

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October 19, 1977

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Director
Roeding Park Zoo
Fresno, California 93728

ROLAND LINDEMANN
President
Catskill Game Farm, Inc.
Catskill, New York 12414

Donald Bridgewater
Minnesota State Zoological Garden
12101 Johnny Cake Road
Apple Valley, Minnesota 55124

Dear Don:

Regarding the ISIS meeting, I will arrive on United at 5:10 P.M. November 13.

I will be leaving on Tuesday, November 15 on United at 6:50 P.M.

Please make a room reservation for me the nights of 13 & 14 November.

Sincerely,

WILLIAM E. MEEKER
President
A.A.Z.P.A.

WEM/vl

c.c. to: Wagner, Merritt, Jan

Office Memorandum

DEPARTMENT _____

TO : Steve Iserman

DATE: 24 October 1977

FROM : Janice M. Olsen *jms*

PHONE: _____

SUBJECT: ISIS - Finances

The AAZPA is sending a committee to conduct a site visit of ISIS on November 14-15, 1977. While I have the budget specifics, I do not have a good understanding of where ISIS fits into the overall MZG and State of Minnesota financial system.

Could you, by 1 November, prepare for us (Donald D. Bridgwater, U.S. Seal, and myself) a statement on the finances of ISIS, including:

- How income is handled
- Restrictions on and procedures for purchase of services and goods and methods for handling payment
- If ISIS is terminated who is responsible for outstanding debts
- Charges to ISIS for financial services and how they are determined
- Services provided by MZG to ISIS at no charge
- Position of auditors on MZG monies being used toward ISIS salaries.

cc: ✓ Donald D. Bridgwater
U. S. Seal

**Office Memorandum**

DEPARTMENT _____

TO : Mary O'Neill

DATE: 24 October 1977

FROM : Janice M. Olsen *JMS*

PHONE: _____

SUBJECT: ISIS Personnel

I am currently preparing reports to be first reviewed by U.S. Seal and Donald D. Bridgwater and then to be presented to a site visit committee of the AAZPA on November 14-15, 1977. I need "the facts" about the various ISIS positions and how these positions are viewed by both the Minnesota Zoological Garden and the State of Minnesota Department of Personnel.

I would appreciate your completing the enclosed questions, expanding on whatever areas you feel pertinent, and returning the information to me by 1 November, 1977.

cc: ~~Donald D. Bridgwater~~
U. S. Seal

Data Entry Operator - Kim Hastings

Is this a permanent civil service position?

If ISIS is terminated, what provisions exist for:
Kim's transfer to another MZG position?

Kim's transfer to another State of Minnesota position?

Does she have to be on any "list" to ensure that these opportunities are available to her?

Kim is eligible for cost of living increases, and step increases within this civil service classification. True?

Reclassification of this position is up to the discretion of the State Department of Personnel, based on demonstration that the responsibilities of the position merit reclassification. True?

Clerk - Typist - Lee Pratt

This is a 1 year CETA position which began 8 June 1977 and will continue through 7 June 1978. True?

Lee is eligible for cost of living and step increases. True?

Since ISIS is unlikely to be in a position to fund a third position, is Lee eligible for any non-CETA Clerk-Typist openings at MZG? If not, what should she do to ensure that she has complied with the necessary requirements or procedures?

If ISIS is terminated, can the CETA grant be transferred to another MZG activity area so that Lee is not laid off?

Unclassified Temporary - Zoological Records Supervisor - Janice M. Olsen

Employee is eligible for cost of living increases, and step increases.

Employee acquires no seniority, not eligible for transfer, accumulates no time toward increased vacation allotment.

Any merit increase in salary would have to be within the % allotted to MZG.

No employee appraisals are required by MZG or Department of Personnel.

No access to grievance procedures.

Termination can be at any time, without reason or recourse.

This position is approved through 10 April 1978. At this time it must be resubmitted to the Department of Personnel or it will be terminated.

This position has been filled for 1 year 6 months (since 12 April 1976) by this means and can be filled on this manner for a maximum of three years.

This unclassified temporary is equivalent to a classified position that is not filled.

If the responsibilities of the position are increased and diversified what means exist for reclassifying the unclassified position?

Can the Zoological Records Supervisor class specifications be rewritten so they accurately reflect the position?

Is there an unclassified category that is not temporary?

What other Civil Service Classification might be appropriate (based on your present understanding of the responsibilities of the position), and what are the possibilities of such a classification being approved?

- Systems Analyst
- Management Analyst
- Other Suggestions?

What are the advantages and disadvantages of the unclassified,
temporary position

To Minnesota Zoological Garden?

To State of Minnesota Personnel?

To the employee?

Are there means to staff a program such as ISIS other than through
the Civil Service Classifications?

Office Memorandum

DEPARTMENT ISIS

TO : D. Bridgwater
 D. Makey
 P. Scobie
 N. Flessness
 U.S. Seal

DATE:

FROM : Janice M. Olsen, System Manager, ISIS *mu*

PHONE: X 172

SUBJECT: ISD Physiological Norms Development

I met with ISD at 9:00 a.m. Thursday 13 Oct. 1977, to discuss the attached memo. ISD staff present were:

Phil Allison-User Liason
 John Schwartz, Assistant Director, Systems & Programming
 Nancy Abraham, Acting Director

The discussion was long and touched on many points.

In summation, ISD raised several questions as to the wisdom of our decision—among them:

- the need to stop and the price of stopping the project at this time
- the hodge podge in our system produced if we go to the U of M for the programming
- concerns about documentation and maintenance
- concern over continued availability of the U computer system to ISIS as a user

I conceded that I had some misgivings myself, but that, based on my experience I had to support the discussion on two counts:

1. With our current budget problems we cannot afford Physiological Norms at any price.
2. I have failed not only to exert any cost control at ISD, but to ascertain whether any user cost control is possible at ISD.

John Schwartz indicated that he wished to meet with D. Bridgwater to present ISD's viewpoint and to discuss possible alternatives.

In view of D. Bridgwater's busy schedule I contacted U.S. Seal and have arranged a meeting of Seal, Schwartz and Abraham in Schwartz' office at 9:00 a.m., Friday 21 October.

It is my hope that the discussion will cover not only the Physiological Norms, but will concentrate on the real problem: ISIS's inability to operate in an environment with no user cost controls.

DEPARTMENT Minnesota Zoological Garden-ISIS**Office Memorandum**

TO : Phillip C. Allison, Liaison Manager, ISD

DATE: 11 October 1977

FROM : ~~Janice M. Olsen~~, Systems Manager, ISISPHONE: 432-9000 X 172

SUBJECT: Physiological Norms Program Development

In June of 1977, a Phase 3 document, the "ISIS - Veterinary Record Subsystem Design Manual" was reviewed and signed off at an estimate, for Phases 4 II - 7, of \$7,109 (with only Ron Plumbo indicating that the hour estimate for Customer Services should be increased by 50%).

On 7 October, 1977, I was notified that revised estimates had been prepared by the programmers assigned to the project and that a figure of \$15,500 was felt to be more realistic.

After consultation with Dale Makey, ISIS Systems Analyst, who prepared and still defends the original estimates, the ISIS Control Group has made the decision to cancel the Physiological Norms development at ISD. ISIS, which operates on a very limited revenue base, can no longer afford to pay the high cost of development at ISD.

I am requesting that, upon receipt of this memo, all work on the Physiological Norms project cease and that copies and summaries of all Phase 4 II work performed to date be provided for our files.

cc D.D. Bridgwater
D.G. Makey
J. Schwartz
U.S. Seal



Minnesota Zoological Garden
12101 Johnny Cake Ridge Road
Apple Valley, Minnesota 55124
Telephone (612) 432-9000

A Program of the American Association
of Zoological Parks and Aquariums

18 October 1977

Donald Bruning, Ph.D.
Curator of Ornithology
New York Zoological Park
185th and Southern Blvd.
Bronx, NY 10460

Dear Dr. Bruning:

I very much enjoyed meeting you and talking with you at the AAZPA San Diego meetings. I am sorry that time did not permit further discussion, but I have enclosed the ISIS report materials that you requested.

The support and funding of ISIS operations and programs is not yet resolved. The U.S.D.I. has indicated that some additional funding is likely, but the date of availability has not been indicated. I have relayed to Donald Bridgwater and U.S. Seal, your offer, on behalf of your-self and others at the New York Zoological Park, to provide any possible assistance to ISIS in presenting grant applications to the U.S.D.I. It is my hope that they will soon be contacting you on this matter.

As things now stand, several AAZPA Board members, as well as an AAZV representative, will be paying a site visit to ISIS on the 14th and 15th of November. It is hoped that discussion at this time will result in a mutually satisfactory plan of operations and support for the future.

Thank you for your continuing support.

Sincerely,

Janice M. Olsen

Janice M. Olsen
System Manager, ISIS

JMO/lp

Enclosure

cc D.D. Bridgwater



Minnesota Zoological Garden
12101 Johnny Cake Ridge Road
Apple Valley, Minnesota 55124
Telephone (612) 432-9000

A Program of the American Association
of Zoological Parks and Aquariums

18 October 1977

William E. Meeker, Director
Sacramento Zoo
3930 W. Land Park Drive
Sacramento, CA 95822

Dear Mr. Meeker:

I enjoyed meeting with you and the other board members in San Diego and I hope the upcoming meetings in Minnesota will serve to further clarify issues and will result in a mutually satisfactory and beneficial agreement.

I need your help in resolving the following matter. Enclosed is a second invoice for the 1976 ISIS Participation Fee. This assessment, as was the 1975 Participation Fee previously paid, is based on the size of your mammal inventory as indicated on your signup sheet.

The ISIS Participation Fee was made mandatory as of 1 July 1975 by the AAZPA membership during the 1974 Philadelphia conference. Operating expenses are based on anticipated receipts from all participants and without payment of these fees we cannot continue to operate. Your institution has only recently begun to submit data but did pay the 1975 Participation Fee. Can we expect to receive payment of the 1976 fee?

Thank you for your attention to this matter.

Sincerely,

Janice M. Olsen

Janice M. Olsen
System Manager, ISIS

JMO/lp

Enclosure



Minnesota Zoological Garden
12101 Johnny Cake Ridge Road
Apple Valley, Minnesota 55124
Telephone (612) 432-9000

A Program of the American Association
of Zoological Parks and Aquariums

19 October 1977

Mr. Stephen R. Edwards, ASC Secretariat
Museum of Natural History
The University of Kansas
Lawrence, Kansas 66045

Dear Mr. Edwards:

The International Species Inventory System is interested in receiving a copy of the BIO - STORET species list, especially the portion listing aquatic vertebrates. ISIS has compiled taxonomic directories for the Mammalia and Aves, to be used in entering data on captive specimens into our data base. We will soon begin the Amphibian Directory and would find the BIO - STORET species list to be a valuable aid in our directory compilation.

I would be pleased if you could advise me as to the availability and cost of this list as well as indicating the possibility that we could be periodically informed of any contracts let on those portions of the list that concern aquatic vertebrates. I will be glad to provide further background information on our organization if it will be of use to you.

Thank you, in advance, for your help with this information.

Sincerely,

A handwritten signature in cursive script that reads "Janice M. Olsen".

Janice M. Olsen
System Manager, ISIS

JMO/lp

38 Announcements

Taxonomy & Systematics

(Continued from page 37)

closed system. More communication (W.L. Lee's article has the potential to serve well as a model) should appear in places readily accessible to the general public and scientific community. In this way, an appreciation for taxonomy and systematics can be acquired and future funding will be enhanced for both systematics collections and proper training of qualified taxonomists and systematists.

Submitted by Richard M. Hammer, Allan Hancock Foundation, University of Southern California, University Park, Los Angeles, California 90007.

BIO-STORET Species List

As stated in the April ASC Newsletter, the Association has received a grant from the Environmental Monitoring and Support Laboratory, U.S. Environmental Protection Agency, Cincinnati, Ohio, to coordinate a review of the BIO-STORET species list. BIO-STORET is a computer software system that includes a master reference file of aquatic species; it was developed to interact with existing computer software used to manage physical and chemical information derived from water quality studies. The species list consists of aquatic flora and fauna arranged hierarchically to accommodate all levels of taxonomic nomenclature for each species. Because of its importance to the efficient use of BIO-STORET, and due to its national scope, this master reference listing will be subjected to review by qualified specialists.

Review will determine certain subsets of the listing, which will be determined to some extent by the areas of specialization of qualified professionals responding. The objectives of these reviews are, as follows:

- 1) to determine completeness and accuracy to subspecific level;
- 2) designate groups that contain species difficult to identify;
- 3) identify groups currently under study or review;
- 4) identify specific taxonomic problems;
- 5) provide a list of pertinent literature references; and
- 6) identify the need for development of identification keys.

Persons interested in participating on a contractual basis, should write: Stephen R. Edwards, ASC Secretariat, Museum of Natural History, The University of Kansas, Lawrence, Kansas 66045. Please include a Curriculum Vitae.

Forthcoming Meetings

The American Ornithologists' Union--
22-26 August 1977:

The 95th stated meeting of the A.O.U. will be held in Berkeley, California.

Biology Curators Group, Geological Curators Group and Systematics Association. Liverpool Conference--22-23 September 1977:

The conference will be held at the University of Liverpool Halls of Residence. The purposes of the meeting are to assess the relevance of botanical, zoological, and paleontological collections housed in provincial institutions to the solution of scientific and environmental problems and to stimulate cooperation nationally. Closing date for application is 10 August 1977. Please address inquiries to: E.F. Greenwood, Assistant Director, Merseyside County Museums, William Brown Street, Liverpool 3 8EN, ENGLAND.

Second International Mycological Congress--August-3 September 1977:

The congress will be convened in Tampa, Florida. For further details write Prof. Melvin S. Fuller, Department of Botany, University of Georgia, Athens, Georgia 30602. [Beginning date not specified.]

Paleontological Convention II--8-10 August 1977:

The second Paleontological Convention will be held 8-10 August 1977 at The University of Kansas, Lawrence, Kansas.

Please address all inquiries to: Roger L. Kaesler, Department of Geology, The University of Kansas, Lawrence, Kansas 66045.

Joining Annual Meetings-- Herpetologists' League and Society for the Study of Amphibians and Reptiles--7-10 August 1977:

These meetings will be held at The University of Kansas.

For further information please write to William E. Duellman, Museum of Natural History, The University of Kansas, Lawrence, Kansas 66045 (913/ 864-3342).

Hugo G Rodeck Ph.D

MUSEUM CONSULTANT

11107 Elati Street Northglenn Colorado
Phone (303) 452-7336 80234

Jessup-McHenry Award

The Academy of Natural Sciences of Philadelphia, through its Jessup and McHenry funds, makes available each year a limited number of awards to support students pursuing natural history studies at the Academy. Awards usually include a stipend to defray living expenses, and support for travel to and from the Academy. Current application deadlines are 1 October 1977 and 1 April 1978. Further information may be obtained by writing to: Chairman, Jessup-McHenry Award Committee, Academy of Natural Sciences of Philadelphia, 19th and the Parkway, Philadelphia, Pennsylvania 19103.

Membership in the Association of Systematics Collections

Institutional membership in the Association of Systematics Collections is open to any bona-fide non-profit institution in North America maintaining systematics collections and giving satisfactory evidence that its collections are 1) permanently housed and curated, 2) maintained to satisfactory standards, 3) managed by a permanent staff of trained scientific personnel, 4) used in support of research and in publication thereof, and 5) accessible to science and society.

Associate membership in the ASC may be extended to institutions located outside North America and otherwise meeting all requirements for institutional membership.

Affiliate membership in the ASC may be extended to any professional society 1) in which the majority of its membership has a demonstrated commitment to systematics collections resources and the goals of the ASC, 2) that is incorporated in North America and operated exclusively as a scientific, or educational organization, 3) that is recognized as a national or international organization, 4) that has a clearly defined constituency and 5) that publishes a journal and/or convenes an annual meeting.

To obtain further information and/or application forms for membership, write to the ASC Secretariat (see masthead for address).

If you would like to receive gratis the ASC Newsletter, please write: ASC Secretariat, Museum of Natural History, The University of Kansas, Lawrence, KS 66045.



Minnesota Zoological Garden
12101 Johnny Cake Ridge Road
Apple Valley, Minnesota 55124
Telephone (612) 432-9000

A Program of the American Association
of Zoological Parks and Aquariums

19 October 1977

Mr. Terry Moore
The Bungalow
Marlind Centre
Codicote Road
Welwyn, Herts
England

Dear Mr. Moore:

I am relieved to note that you at long-last received your directories. We will send you all updates as soon as they are available.

I am most pleased at your offer to correct, and expand our listing of United Kingdom zoos and animal dealers and await the arrival of your comments.

The references for all taxonomic classifications on the Felidae are listed on pages 534 and 535 of the References in the ISIS Mammalian Taxonomic Directory. We welcome all comments and suggestions for change, but we would like to emphasize that the directory was not intended to be a taxonomic treatise. It was designed to serve as a guideline and a basis for input of data into the computer files.

Please do not hesitate to contact me if you have further questions or suggestions.

Sincerely,

A handwritten signature in cursive script that reads "Janice M. Olsen". The signature is written in dark ink and is positioned above the typed name.

Janice M. Olsen
System Manager, ISIS

ISIS - REPORT AND FORM VERIFICATION

Institution Terry Moore / Cat Survival Trust.

"Report and Form Control Sheet" number 2366

Directorates #322 #321 #161 - Please send page updates as they appear. Corrected UK sheets will be returned to you later of #321. Please advise and corresponding reports and/or forms received and verified.
Source of taxonomic subspecies of the felidae section
P404-#22 of #322

By [Signature]
ZO-00p11-02

DATE 2/10/77



Minnesota Zoological Garden
12101 Johnny Cake Ridge Road
Apple Valley, Minnesota 55124
Telephone (612) 432-9000

A Program of the American Association
of Zoological Parks and Aquariums

19 October 1977

Mr. Robert Bullermann
Milwaukee County Zoo
10001 West Bluemound Road
Milwaukee, Wis. 53226

Dear Mr. Bullermann:

I am sorry that our request to clarify the nature of some of your special records proved to be an inconvenience to you. Because of a programming change that will specifically identify a data item as a tag, tattoo, or house name, we have had to examine all the records submitted by every participant. In the case of your records, we scanned all the data sheets, clarified those which we understood, and asked for your advice on those remaining. We asked for clarification on 31 of 300 records. I am certain that a few of these were oversights on our part, but in a number of cases we did not feel we could distinguish between a tag or tattoo, and thought it better to check than to guess. All of this may not make the time spent on your part seem any more reasonable, but we did try to reduce the time required of you to a minimum.

I hope that if there are other problems or suggestions you will not hesitate to contact me. We will do whatever possible to be responsive to the needs of your organization.

Thank you again for your cooperation.

Sincerely,

A handwritten signature in cursive script that reads "Janice M. Olsen".

Janice M. Olsen
System Manager, ISIS

JMO/lp

Must we look up each code number to identify each entry?

Note: Since our record system here is filed by common name, it is difficult to identify by Spc ID and ISIS #. The system is getting to be an exercise in confusion. All info requested was found on ISIS Card!
R. Bullermann

(Notes taken from return special records sheet.- JMO)



Minnesota Zoological Garden
12101 Johnny Cake Ridge Road
Apple Valley, Minnesota 55124
Telephone (612) 432-9000

A Program of the American Association
of Zoological Parks and Aquariums

19 October 1977

Mr. Pete Rucker
2815 S. Providence
Columbia, Missouri 65201

Dear Mr. Rucker:

Thank you for your letter of 7 September, 1977. Unfortunately ISIS does not yet have an operational physiological norms program and hence cannot provide the cheetah data you request.

However, Dr. U.S. Seal, Minneapolis Veterans Administration Hospital, is presently preparing a paper which includes cheetah blood data and I feel that he can be of considerable assistance to you. Dr. Seal may be contacted at the following address:

Dr. Ulysses S. Seal
Veterans Administration
54th and 48th Avenue So.
Minneapolis, MN 55417

Thank you for your interest in ISIS.

Sincerely,

A handwritten signature in cursive script that reads "Janice M. Olsen".

Janice M. Olsen
Systems Manager, ISIS

JMO/kh

RECEIVED SEP 12 1977

September 7, 1977

ISIS
Minnesota Zoological Garden
12101 Johnny Cake Ridge Zoo
Apple Valley, Minnesota 55124

Dear Sirs:

I am writing this letter in regard to your resources on normal physiological data in exotic animals. I recently finished an internship with Dr. Robert Hertzog, the veterinarian for the Kansas City Zoo. We are attempting to write a short paper involving a case with the female cheetah.

Would you please send me the normal baseline data on cheetahs? I'm interested in blood profile which would include CBC, and all serum tests you have available. We need this data to compare our blood and laboratory examinations with normal values. Any additional information you might have would be appreciated.

Thank you for your cooperation.

Sincerely,



Pete Rucker
2815 S. Providence
Columbia, Missouri 65201

PR:ns

ZooTeam Inc /transmittal

12000 Galaxie Avenue
Apple Valley, Minnesota 55124
(612) 432-1811

date October 28, 1977

to Minnesota Zoo Board
attention G. Hegstrom

- | | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | enclosed |
| <input type="checkbox"/> | under separate cover |
| <input type="checkbox"/> | by mail |
| <input type="checkbox"/> | by messenger |
| <input type="checkbox"/> | sent as per your request |
| <input type="checkbox"/> | sent for your information |
| <input type="checkbox"/> | approved |
| <input type="checkbox"/> | approved only as noted |
| <input type="checkbox"/> | returned for correction and resubmittal |

*Steve D:
OK to Process.
SD*

remarks Three copies Payment Request #11, Contract #77900-00449/00479
for State processing.

by Construction Management

INVOICE



OFFICES IN:
ST. PAUL
MINNEAPOLIS

REMIT TO: ► 239 W. 7th ST., ST. PAUL, MN. 55102 PHONE: (612) 224-4926

Zooteam, Inc.
12000 Galaxie Ave.
Apple Valley, MN 55124

DATE: 10/21/77
OUR NUMBER: 177,000
YOUR NUMBER:
DATE JOB COMPLETE:

WORK LOCATION:	Zoological Gardens, Apple Valley, MN	
WORK DONE:	Provide CCTV, Security, Sound System per plans and specs	
	CONTRACT #77900-00449/00479	
	PARTIAL REQUEST #11	
	Value of work completed this period	4,880.00
	Less - 10% Retainage	<u>488.00</u>
AMOUNT DUE:		4,392.00

RECEIVED OCT 25 1977

Application Date: 10/21/77
 Payment Request No. 11
 Period From: 8/1/77
 To: 10/31/77

**PAYMENT
REQUEST**

PAGE ONE OF PAGES

MINNESOTA

ZOOLOGICAL

GARDEN

To

State of Minnesota
 % Minnesota Zoological Board
 33 East Wentworth Avenue
 West St. Paul, Minn. 55118

CONTRACTOR: HOFFMANN ELECTRIC COMPANY
 ADDRESS: 239 W. 7th Street, St. Paul, MN 55102

CONTRACT NO. 77900-00449/00479
 CONTRACT DATE: June 30, 1976
 CONTRACT FOR: Communications System, Zoological Garden

Tran.	Vendor Number		Type
Invoice Number		Organization	
Seq. No.	Suff.	Dept P.O. / F.O. No.	Object
Amount of Invoice		Date	Sub Act. Task
Sub Task	Cost / Client Code		Fed. Rev.

Application is made for Payment, as shown below, in connection with the attached Break-down.

The present status of the account for this Contract is as follows:

ORIGINAL CONTRACT SUM	\$ 179,200.00
Net change by Supplemental Agreements	\$
CONTRACT SUM TO DATE	\$ 179,200.00
TOTAL COMPLETED & STORED TO DATE (Column G on attached Breakdown)	\$ 170,000.00
RETAINAGE 10% or as noted in Column I on attached Breakdown.	\$ 17,000.00
TOTAL EARNED LESS RETAINAGE	\$ 153,000.00
LESS PREVIOUS PAYMENT REQUESTS	\$ 148,608.00
CURRENT PAYMENT DUE	\$ 4,392.00

Additions approved to date () \$

Deductions approved to date () \$

State of Minnesota, County of: Ramsey

The undersigned Contractor certifies that the Work covered by this Payment Request has been completed in accordance with the Contract Documents, that all amounts have been paid by him for Work for which previous Payment Requests were issued and payments received from the Owner, and that the current payment shown herein is now due.

Contractor: HOFFMANN ELECTRIC CO.

By: M. E. Hagen, Treas. Date: 10/21/77

Subscribed and sworn to before me this 21st day of October 1977
 JOAN M. PETERSON
 Notary Public
 My Commission Expires June 8, 1979

ZOOTeam, Inc.
 By: W. G. Young Date: 10/24/77
 Architect / Construction Management
 By: Walter R. Witt Date: 10/27/77
 Field Representative

MINNESOTA ZOOLOGICAL BOARD
 By: Gerald A. Skye Date: 10/27/77
 By: J. D. Skye Date: 10/27/77

DEPARTMENT OF FINANCE
 Approved as to encumbered funds.
 By: _____
 Date: _____

MINNESOTA

Payment Request #11

ZOOLOGICAL

GARDE

PAYMENT REQUEST, containing CONTRACTOR'S signed Certification is attached.

In tabulations below, amounts are stated to the nearest dollar. Use Column I on Contracts where variable retainage for line items may apply.

ITEM No. A	DESCRIPTION OF WORK D	SCHEDULED VALUE C	WORK COMPLETED		STORED MATERIALS F	TOTAL COMPLETED AND STORED TO DATE G(D+E+F)		BALANCE TO FINISH H(C-G)	RETAINAGE I
			Previous Applications D	This Application E		%	%		
1.	General Conditions (bond, insurance job start-up)	4,000.00	4,000.00			4,000.00	100		400.00
2.	Outdoor Trenching & Direct Burial Wire Material Labor	40,000.00 20,000.00	40,000.00 18,000.00	1,000.00		40,000.00 19,000.00	100 95	1,000	4,000.00 1,900.00
3.	Wireway Material Labor	6,000.00 6,000.00	6,000.00 6,000.00			6,000.00 6,000.00	100 100		600.00 600.00
4.	Conduit Work Material Labor	2,000.00 6,000.00	2,000.00 6,000.00			2,000.00 6,000.00	100 100		200.00 600.00
5.	Inside Wire Material Labor	10,000.00 10,000.00	10,000.00 10,000.00			10,000.00 10,000.00	100 100		1,000.00 1,000.00
6.	Security/P.A./T.V. Eq	45,000.00	45,000.00			45,000.00	100		4,500.00
7.	Connection & Testing	30,200.00	18,120.00	3,880.00		22,000.00	73	8,200	2,200.00
	SUB TOTAL OR TOTAL	179,200.00	165,120.00	4,880.00		170,000.00	95	9,200	17,000.00

INVOICE



OFFICES IN:
ST. PAUL
MINNEAPOLIS

REMIT TO: ► 239 W. 7th ST., ST. PAUL, MN. 55102 PHONE: (612) 224-4926

Zooteam, Inc.
12000 Galaxie Ave.
Apple Valley, MN 55124

DATE: 10/21/77
OUR NUMBER: 177,000
YOUR NUMBER:
DATE JOB COMPLETE:

WORK LOCATION:	Zoological Gardens, Apple Valley, MN	
WORK DONE:	Provide CCTV, Security, Sound System per plans and specs	
	CONTRACT #77900-00449/00479	
	PARTIAL REQUEST #11	
	Value of work completed this period	4,880.00
	Less - 10% Retainage	<u>488.00</u>
	AMOUNT DUE:	4,392.00

Application Date 10/21/77
 Payment Request No 11
 Period From: 8/1/77
 To: 10/31/77

PAYMENT REQUEST

PAGE ONE OF PAGES

MINNESOTA ZOOLOGICAL GARDEN

To State of Minnesota
 % Minnesota Zoological Board
 33 East Wentworth Avenue
 West St. Paul, Minn. 55118

CONTRACTOR: HOFFMANN ELECTRIC COMPANY
 ADDRESS: 239 W. 7th Street, St. Paul, MN 55102
 CONTRACT NO. 77900-00449/00479
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Tran.	Vendor Number	Type
Invoice Number		Organization
Seq. No.	Suff.	Dept P.O. / F.O. No.
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Sub Task	Cost / Client Code	Fed. Rev.

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(Column G on attached Breakdown)	
RETAINAGE 10%	\$ 17,000.00
or as noted in Column I on attached Breakdown.	
TOTAL EARNED LESS RETAINAGE	\$ 153,000.00
LESS PREVIOUS PAYMENT REQUESTS	\$ 148,608.00
CURRENT PAYMENT DUE	\$ 4,392.00

Additions approved to date (_____)
 \$ _____

Deductions approved to date (_____)
 \$ _____

State of Minnesota, County of: Ramsey
 The undersigned Contractor certifies that the Work covered by this Payment Request has been completed in accordance with the Contract Documents, that all amounts have been paid by him for Work for which previous Payment Requests were issued and payments received from the Owner, and that the current payment shown herein is now due.

Contractor: HOFFMANN ELECTRIC CO.
 By: *M. E. Hagen*
 M. E. Hagen, Treas. Date: 10/21/77

Witness me this 21st day of October 1977
 JOAN M. PETERSON
 Notary Public - Minnesota
 My Commission Expires: 6-8-79

ZOOTEA INC.
 By: *W. E. G.* Date: 10/26/77
 Architect / Construction Management
 By: *W. R. Smith* Date: 10/27/77
 Field Representative

MINNESOTA ZOOLOGICAL BOARD
 By: *Harold Hagen* Date: 10/27/77
 By: *Don D. Boylston* Date: 10/27/77

DEPARTMENT OF FINANCE
 Approved as to encumbered funds.
 By: _____
 Date: _____

MINNESOTA

Payment Request #11
ZOOLOGICAL

GARDE

PAYMENT REQUEST, containing CONTRACTOR'S signed Certification is attached.

In tabulations below, amounts are stated to the nearest dollar. Use Column I on Contracts where variable retainage for line items may apply.

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			Previous Applications D	This Application E		%	%		
1.	General Conditions (bond, insurance job start-up)	4,000.00	4,000.00			4,000.00	100		400.00
2.	Outdoor Trenching & Direct Burial Wire								
	Material	40,000.00	40,000.00	1,000.00		40,000.00	100		4,000.00
	Labor	20,000.00	18,000.00			19,000.00	95	1,000	1,900.00
3.	Wireway								
	Material	6,000.00	6,000.00			6,000.00	100		600.00
	Labor	6,000.00	6,000.00			6,000.00	100		600.00
4.	Conduit Work								
	Material	2,000.00	2,000.00			2,000.00	100		200.00
	Labor	6,000.00	6,000.00			6,000.00	100		600.00
5.	Inside Wire								
	Material	10,000.00	10,000.00			10,000.00	100		1,000.00
	Labor	10,000.00	10,000.00			10,000.00	100		1,000.00
6.	Security/P.A./T.V. Eq	45,000.00	45,000.00			45,000.00	100		4,500.00
7.	Connection & Testing	30,200.00	18,120.00	3,880.00		22,000.00	73	8,200	2,200.00
	SUB TOTAL OR TOTAL	179,200.00	165,120.00	4,880.00		170,000.00	95	9,200	17,000.00



OFFICES IN:
ST. PAUL
MINNEAPOLIS

REMIT TO: ► 239 W. 7th ST., ST. PAUL, MN. 55102 PHONE: (612) 224-4926

Zooteam, Inc.
12000 Galaxie Ave.
Apple Valley, MN 55124

DATE: 10/21/77
OUR NUMBER: 177,000
YOUR NUMBER:
DATE JOB COMPLETE:

WORK LOCATION:	Zoological Gardens, Apple Valley, MN	
WORK DONE:	Provide CCTV, Security, Sound System per plans and specs	
	CONTRACT #77900-00449/00479	
	PARTIAL REQUEST #11	
	Value of work completed this period	4,880.00
	Less - 10% Retainage	<u>488.00</u>
	AMOUNT DUE:	4,392.00

Application Date 10/21/77
 Payment Request No. 11
 Period From: 8/1/77
 To: 10/31/77

PAYMENT REQUEST

PAGE ONE OF _____ PAGES

MINNESOTA

ZOOLOGICAL

GARDEN

To

State of Minnesota
 % Minnesota Zoological Board
 33 East Wentworth Avenue
 West St. Paul, Minn. 55118

CONTRACTOR: HOFFMANN ELECTRIC COMPANY
 ADDRESS: 239 W. 7th Street, St. Paul, MN 55102

CONTRACT NO. 77900-00449/00479
 CONTRACT DATE: June 30, 1976
 CONTRACT FOR: Communications System, Zoological Garden

Tran.	Vendor Number		Type
Invoice Number		Organization	
Seq. No.	Suff.	Dept P.O. / F.O. No.	Object
Amount of Invoice		Date	Sub Act. Task
Sub Task	Cost / Client Code		Fed. Rev.

Application is made for Payment, as shown below, in connection with the attached Break-down.

The present status of the account for this Contract is as follows:

ORIGINAL CONTRACT SUM	\$ 179,200.00
Net change by Supplemental Agreements	\$ _____
CONTRACT SUM TO DATE	\$ 179,200.00
TOTAL COMPLETED & STORED TO DATE	\$ 170,000.00
(Column G on attached Breakdown)	
RETAINAGE 10%	\$ 17,000.00
or as noted in Column I on attached Breakdown.	
TOTAL EARNED LESS RETAINAGE	\$ 153,000.00
LESS PREVIOUS PAYMENT REQUESTS	\$ 148,608.00
CURRENT PAYMENT DUE	\$ 4,392.00

Additions approved to date (_____)
 \$ _____

Deductions approved to date (_____)
 \$ _____

State of Minnesota, County of: Ramsey

The undersigned Contractor certifies that the Work covered by this Payment Request has been completed in accordance with the Contract Documents, that all amounts have been paid by him for Work for which previous Payment Requests were issued and payments received from the Owner, and that the current payment shown herein is now due.

Contractor: HOFFMANN ELECTRIC CO.

By: M. E. Hagen, Treas. Date: 10/21/77

Subscribed and sworn to before me this 21st day of October 1977

JOAN M. PETERSON
 NOTARY PUBLIC - MINNESOTA
 My Commission Expires: 6-8-79
 DAKOTA COUNTY
 My Commission Expires June 8, 1979

ZOOTeam, Inc.
 By: W. H. Young Date: 10/20/77
 Architect / Construction Management
 By: John R. Quinn Date: 10/27/77
 Field Representative

MINNESOTA ZOOLOGICAL BOARD
 By: Samuel D. Husted
 Date: 10/27/77
 By: John D. Bradford
 Date: 10/27/77

DEPARTMENT OF FINANCE
 Approved as to encumbered funds.
 By: _____
 Date: _____

MINNESOTA

Payment Request #11
ZOOLOGICAL

GARDE

PAYMENT REQUEST, containing CONTRACTOR'S signed Certification is attached.

In tabulations below, amounts are stated to the nearest dollar. Use Column 1 on Contracts where variable retainage for line items may apply.

ITEM No. A	DESCRIPTION OF WORK D	SCHEDULED VALUE C	WORK COMPLETED		STORED MATERIALS F	TOTAL COMPLETED AND STORED TO DATE G(D+E+F)		BALANCE TO FINISH H(C-G)	RETAINAGE I
			Previous Applications D	This Application E		%			
1.	General Conditions (bond, insurance job start-up)	4,000.00	4,000.00			4,000.00	100		400.00
2.	Outdoor Trenching & Direct Burial Wire								
	Material	40,000.00	40,000.00	1,000.00		40,000.00	100		4,000.00
	Labor	20,000.00	18,000.00			19,000.00	95	1,000	1,900.00
3.	Wireway								
	Material	6,000.00	6,000.00			6,000.00	100		600.00
	Labor	6,000.00	6,000.00			6,000.00	100		600.00
4.	Conduit Work								
	Material	2,000.00	2,000.00			2,000.00	100		200.00
	Labor	6,000.00	6,000.00			6,000.00	100		600.00
5.	Inside Wire								
	Material	10,000.00	10,000.00			10,000.00	100		1,000.00
	Labor	10,000.00	10,000.00			10,000.00	100		1,000.00
6.	Security/P.A./T.V. Eq	45,000.00	45,000.00			45,000.00	100		4,500.00
7.	Connection & Testing	30,200.00	18,120.00	3,880.00		22,000.00	73	8,200	2,200.00
	SUB TOTAL OR TOTAL	179,200.00	165,120.00	4,880.00		170,000.00	95	9,200	17,000.00



AMERICAN ASSOCIATION OF ZOO VETERINARIANS

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063 Physiology
Emory University
Atlanta, Georgia 30322
(404) 329-7423

October 10, 1977

MEMO TO: WILLIAM E. MEEKER, EDWARD J. MARUSKA,
DON D. FARST, D.V.M., DENNIS MERITT,
JR., DON BRIDGWATER, JAN OLSEN AND
ROBERT TEMPLE, D.V.M.

FROM: WILLIAM J. BOEVER, D.V.M.

SUBJECT: ISIS MEETING TO BE HELD AT THE MINNESOTA
STATE ZOOLOGICAL GARDEN, NOVEMBER 14-15.

I have talked with Robert Temple, D.V.M.
concerning the ISIS meeting in Minnesota.
Bob will be installed as President of AAZV
at our annual meeting October 30 - November 3.

ISIS and the physiological norms will
be discussed at the Executive Board meeting.
Bob, or the Chairman of the Research Committee,
will represent AAZV at the meeting in
Minnesota to convey our thoughts, wishes and
expectations for ISIS.


William J. Boever, D.V.M.
President

WJB:vw

Office Memorandum

DEPARTMENT ISIS

TO : Don Bridgwater

DATE: 18 Oct. 1977

FROM : Janice M. Olsen, System Manager, ISIS *JMO*PHONE: X 172

SUBJECT: AAZPA Site Visit

Premise:

The AAZPA Board representatives wish to examine ISIS in detail, both on a day to day operational basis and on a broader policy and planning level. I feel they support the inventory system and that, once convinced that ISIS is soundly managed, solvent, and responsive to AAZPA needs and suggestions, the AAZPA will undertake the recruitment that is needed to insure both a complete and representative data base and a balanced budget.

In brief, we must convince them that ISIS has been handling and can continue to handle the responsibility for a mammal and bird inventory system, provide detailed information on the status of endangered species, and supply studbook, pedigree, demography information. In addition, the AAZV must be convinced that their money has been well spent and that the physiological norms program has a high priority.

My proposed agenda is subdivided thusly:

Sunday - Social

Monday Morning - Bird & Mammal Inventory,
operation - finances

Monday Afternoon - Development programs

Tuesday Morning - Negotiations

Tuesday Afternoon - Conflict resolution & policy drafting

Sunday 13 November

Agenda

Afternoon arrival

Hotel

Transportation to zoo site
(for duration of meeting)

Zoo Tour
Time? Length? Guide?

Dinner
Time? Place? Participants?

Questions

Has anyone responded to date?

Where?
Who is making reservations?

Are we providing?
If not, what are we suggesting?

Will you be guiding tour?
Are there any arrangements
which should be made?

Who is making reservations etc.
Who should be at this dinner?

Monday 14 November

AGENDA

8:30 Tour of ISIS Office (Jan, Kim, Lee)

Run through daily procedures for handling bird and mammal inventory data.

Review all other routine office procedures.

Review of staff responsibilities and time schedules.

10:00 General ISIS Mammal & Bird Inventory Program

Structure: review of role, responsibilities, authority and accountability of the following groups and persons:

AAZPA - ISIS Representative
ISIS Founders
ISIS Control Group
ISIS Systems Manager

Finances: review of income and expenses of the Mammal & Bird Inventory System, include discussion of participation fees, directory sales, special report fees, and indirect support.

Participants: who are they, what support do they provide, what services are available to them.

12:00 Lunch

Where? Who?

1:30 ISIS Development Programs

General Background - why?

Financing - current contracts & obligations
- fund raising
- indirect support

Priorities

What will each program provide, to whom, and at what cost to whom?

2:00 Nate - Studbook/pedigree/demography

2:45 Dale? US Seal? Paul? Phys. Norms

3:00 U.S. Seal - Amp., Rept., Fish Taxonomy

3:30 - 5:00 AAZPA Board will be set up in MZG Board Room for their own meetings, or for interview with any MZG or ISIS personnel.

Dinner?

Evening plans?

Tuesday 15 November

AGENDA

8:30 - 10:00 Meetings, prep., further individual questions by AAZPA

10:00 - 12:00 General discussion and negotiation session

Presentation of AAZPA requests, criteria, critiques etc.

Presentation of AAZV requests, criteria, critiques etc.

Presentation of ISIS requests etc.

Lunch - Who? Where?

1:30 - Formal Policy Session

Where do we go from here?

*mat & reports
Wed
noon*

TRANSMITTAL — MESSAGE SLIP

TO: <i>Row B.</i>	LOCATION
DATE	TIME
FROM: <i>Mary</i>	LOCATION

TRANSMITTAL ACTION	CALL OR VISIT
<input type="checkbox"/> Review and see me	NAME
<input type="checkbox"/> Review and return	FROM
<input type="checkbox"/> Prepare reply for my sig.	PHONE NO.
<input type="checkbox"/> Reply and send me copy	<input type="checkbox"/> Called
<input checked="" type="checkbox"/> For your approval	<input type="checkbox"/> Was here to see you
<input type="checkbox"/> For your information	<input type="checkbox"/> Please call
<input type="checkbox"/> For signature	<input type="checkbox"/> Will call again
<input type="checkbox"/> As we discussed	<input type="checkbox"/> Returned your call
<input type="checkbox"/> As you requested	
<input type="checkbox"/> Take appropriate action	
<input type="checkbox"/> Notify staff	

MESSAGE



The determination as to the level of the position held by Kim is made by the Minnesota Department of Personnel based on information supplied by the Minnesota Zoological Garden. The next higher level in the Data Entry Operator series is Data Entry Operator, Lead. However, this classification indicates that there are Data Entry Operators at a lower level under the direction of a leadworker.

2. Lee Pratt: Lee was appointed as a CETA Title VI Clerk Typist on June 8, 1977. This position will terminate on June 7, 1978. The position which Ms. Pratt holds is totally funded by Dakota County CETA. This includes salary as well as benefits. The purpose of CETA is to provide job opportunities to disadvantaged people, so that their skills may be brought up to a level which will lead to employment and self-sufficiency. Title VI appointments are unclassified temporary appointments made under the provisions of Personnel Rule 10. No guarantee is made by the appointing authority of providing permanent employment once the CETA funding ceases.

Lee is also eligible for any cost of living or step increases that are due. If performance is satisfactory she will progress from step 2 of the range (\$606 per month) to step 3 of the range (\$625 per month) on or about December 8, 1977.

Lee is eligible to compete for permanent Clerk Typist positions at the Minnesota Zoological Garden and any other state agency having a vacancy. The qualifications for the Clerk Typist examination are strictly a typing test given by the Minnesota Department of Employment Services. The examination results must be kept current. Test scores become void every six months. If she took the test in June, and would possibly be appointed to a position at the MZG or at another state agency after December, 1977, she would have to retake the examination.

The Zoo has been provided a CETA Clerk Typist position in ISIS for a period of one year. If ISIS is terminated, I am sure that CETA will allow that position to be transferred to another division in lieu of lay-off.

3. Jan Olsen: The Zoological Records Supervisor position of which Ms. Olsen holds is a complement position. Ms. Olsen was appointed to an unclassified position comparable to this classification on April 12, 1976 under the provisions of Personnel Rule 10 for a period of one year. This appointment was then renewed for an additional year and has been approved through April 9, 1978. Personnel Rules state that an unclassified appointment may last no longer than three years. Therefore, one additional unclassified appointment may be made, which could be for an additional year. The classification of the temporary appointment is equivalent or comparable to an existing civil service classification, Zoological Records Supervisor.

The incumbent in this position is eligible for any cost-of-living and step increases that are available to regular classified employees. In addition, the employee is also eligible for other benefits including insurance, vacation leave, sick leave and retirement. The nature of the position also allows for merit increases, the same as may be allowed for classified employees in the "A" salary schedule; the qualifying factors for the merit increase in both classified and unclassified positions in the "A" schedule is that achievement awards may be granted up to 30% of the classified and 30% of the unclassified employees of an agency whose salary ranges are set by direct comparison to the classified service authorized for the department at the beginning of the fiscal year. The MZG is authorized one merit increase for unclassified positions per year.

October 31, 1977
MEMO to Jan Olsen
Page 3.

The employee also has access to grievance procedures. Several of these include the Minnesota Personnel Board, the Governor's Affirmative Action program, and the Minnesota Department of Human Rights. Although formal performance appraisals are not required for positions that are appointed under Personnel Rule #10, appraisals are required annually of all unclassified appointments.

The classification Zoological Records Supervisor, which to my knowledge was established in 1975, indicates that a person in this position would be responsible for "compiling, organizing, and distributing statistical data relating to the population of zoological organizations on an international basis" (see attached civil service class specification). Based upon my knowledge of the position and a comparison with the class specification for Zoological Records Supervisor, I feel that the majority of the responsibilities are properly reflected in the class spec. My one concern might be that not enough emphasis is made relative to data processing and computer-related areas. The Zoological Records Supervisor class specification can be rewritten to incorporate any additional duties as well as delete any that may no longer be pertinent (e.g. "collects and maintains inventory, vital statistics, life history and medical case record data for MZG on all of its vertebrate specimens"). If it is felt that the Zoological Records Supervisor classification is no longer pertinent, or that the salary range is not appropriate to the responsibilities of the position, the Zoological Garden may inform the Department of Personnel of the necessary changes and justify any salary range changes, if necessary. However, it must be kept in mind that the Zoological Records Supervisor salary range itself cannot be changed until July, 1979. At this time I feel that the current civil service classification, Zoological Records Supervisor, properly reflects the duties involved in Ms. Olsen's position. I think it would be quite difficult to justify to the Department of Personnel a general civil service classification (e.g. Systems Analyst, Management Analyst, Research Analyst), as the Zoological Records Supervisor classification clearly spells out the uniqueness of that position.

As to the questions regarding the advantages and disadvantages of an unclassified temporary position, I can only state that to my knowledge, the clear advantage to the MZG is that due to the uncertainty of ISIS, a temporary appointment fits the needs of the MZG best. In addition, appointments can be made without going through the civil service examination system, thereby allowing the zoo to appoint the individual they feel is best suited to the position in a very short time.

I am unaware of any true advantages or disadvantages to the Department of Personnel.

As for the employee, the advantages are very similar to those mentioned above for the MZG -- the individual is able to secure a position immediately without going through civil service examination procedures. The disadvantage may be that due to the temporary nature of the position, the individual does not have permanent status. However, the rules governing temporary appointments state that a maximum of three years on a temporary appointment is allowed. At the end of the three years, either the position becomes classified with the employee then being possibly appointed to that position, or the position is terminated.

October 31, 1977
MEMO to Jan Olsen
Page 4.

To my knowledge, all state agencies and programs under the Executive Branch fall under civil service rules and regulations. I do not know of any other means of operating the ISIS program other than through the civil service system.

MO/pc

cc: ✓ Don Bridgwater
U. S. Seal



Office Memorandum

DEPARTMENT _____

TO : Jan Olsen

DATE: October 28, 1977

FROM : Steve Iserman 

PHONE: 120

SUBJECT: ISIS - Finances

This is in response to your memo dated October 24 concerning certain aspects of the ISIS financial situation.

The ISIS income is deposited through the State Treasurer's office to the credit of two separate accounts -- the Federal Account (Fund 30), and the Participation Fees Account (Fund 20). These two types of revenue cannot be combined because the State is on a "clean fund" accounting system. ISIS is affiliated with the MZG and therefore it has to adhere to all the rules and regulations of the state as they affect state agencies.

Any function pertaining to printing, purchasing, data processing, finance, payroll, personnel, contracts, etc. must be routed through the appropriate state agency for approval, and in many cases, the final decisions or determinations. For these services, ISIS is charged an annual overhead amount which theoretically reflects the services received.

ISIS, however, is not charged for in-house services such as telephone, office space, xeroxing, occasional use of the MZG cars, and until recently, a funded position (Linda Murtfeldt). The Legislative Auditor's position on Linda's salary being funded by the zoo is that it wasn't a proper zoo expense and that a percentage of her salary should be reimbursed by ISIS. This point will be better defined when they issue their report. I also believe that if other "no charge" items which ISIS receives were brought to the attention of the auditors, they would maintain the same position.

Finally, if ISIS were to terminate, any outstanding debts would ultimately be the responsibility of the MZG.

I hope this memo has addressed itself to your concerns. If you have any further requirements or questions, please contact me.

SI/je

cc: Don Bridgwater
U. S. Seal