



Minnesota State Zoological Board.  
Zoo-Related Organizations Files.

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RECORD OF MEETING

NAME: INTERNATIONAL SPECIES INVENTORY SYSTEM  
DATE: April 14, 1977  
PRESENT: Bridgwater, Flesness, Makey, Olsen, Seal

PURPOSE: ISIS Project Control Group - Meeting #5

ACTION BY

1. Organization and Procedures.

- a. Office Operations. Olsen requested that some general policy guidelines be established for the following transactions:

- Cost of ISIS directories and reports to non-participants.
- Cost of duplicate directories to a participating institution.
- Kinds of manuals submitted to new participants without cost.
- Cost of information to non-participants.

It was suggested that the cost of producing each manual be determined and that a charge of approximately 3 times the cost be assigned. When the cost information is available, pricing will be confirmed at a Control Group Meeting. Suggested rates:

Institution Procedures	\$ 15
World Geographic and Institution	25
Mammalian Taxonomic Directory	30
Avian Taxonomic Directory, Part 1	50
Avian Taxonomic Directory, Part 2	50
1976 Species Distribution Report	100

Olsen

- b. Contracts. No action.

- c. AAZPA-ISIS Relationships. Bridgwater distributed copies of "Notes on Meeting with the AAZPA Board of Directors - ISIS Report".

2. Cost Control.

- a. Budget. The monthly budget was presented. It was suggested that efforts to separate operating and development costs be continued and expanded.

Olsen

Olsen mentioned the FY78 budget but discussion was postponed until more concrete figures can be provided. It was noted that a deficit spending situation will probably exist in a few months prior to receipt of 1977 participation fees.

- b. Payments and Subscriptions. Olsen must provide cost per record operating costs before any meaningful discussion can occur about fee revision. If possible, this should be ready for the next meeting.

Olsen

- c. Funding. An additional \$4,817 will be donated to ISIS by the AAZPA in fiscal 1977. USDI can be billed for an additional \$10,000 after October 1, 1977.

Information for a Letter of Intent from ISIS to a Washington, D.C. potential benefactor must be gathered. Information must include computer conversion costs, computer purchase or time sharing costs, staffing requirements, space requirements, and operating costs for a fully functional ISIS program.

Olsen  
Seal  
Makey  
Flesness

3. Task Schedules.

- a. Passeriformes Taxonomic Directory. The genus index for Volume 2 should include all the genus cards for the entire directory.
- b. Annual Reports. No action.
- c. Studbook and Pedigree Analysis. A detailed review was given of the status of the project.

Murtfeldt

Dale outlined the 3 functional subsystems of the Studbook/Pedigree Demography System.

1. A Cumulative Vital Statistics tape will be produced by ISD. This tape will contain all records from the active vital statistics file and all records from the historical vital statistics file. (The creation of a historical vital statistics file, identical in organization to and processed similarly to the active file was discussed very generally. This topic must be pursued in detail at a later date.)

Makey

2. Nate will use the ISD tape as input at the U of M. He will extract and format the data for his purposes. No data corrections will be entered at the University. Records not meeting editing constraints will be noted. All corrections must be entered through ISD.

3. University Report Generation. Nate distributed copies of "Progress Report and Proposals: University Computer Package, Pedigree and Demography Subsystem of ISIS" of April 11, 1977 which describes in detail the proposed report types.

- d. Phase 8 Completion. No action.
- e. Reptiles and Amphibians. No action.
- f. Physiological Norms. No action.

4. Scientific Papers and Other Reports. No action.

5. Publicity. No action.

6. Professional Meetings. No action.

7. Records Problems and Requests from Subscribers. No action.

8. The next regular meeting of the ISIS Control Group will be held on April 28, 1977 at 8:00 AM in the conference room of Building A.

RECORD OF MEETING

NAME: INTERNATIONAL SPECIES INVENTORY SYSTEM  
DATE: March 31, 1977  
PRESENT: Hastings, Olsen, Flesness, Scobie, Bridgwater

PURPOSE: ISIS Project Control Group - Meeting #4

ACTION BY

1. Organization and Procedures.

- a. Office Operations. Applications for two fulltime, 1 year CETA employees have been submitted for Clerk Typist and Research Assistant. The Research Assistant position, if filled, would require approximately \$2,000 of ISIS funds to cover the 1 year salary.

Discussion of equipment needs and space requirements was postponed until the next meeting.

Olsen  
Bridgwater

- b. Contracts. Nate's contract will be reduced to a total of \$2,000 from the original \$5,500 figure.

Olsen

- c. AAZPA-ISIS Relationships. No action.

2. Cost Control.

- a. Budget. The monthly budget was presented. Inclusion of salary and contract figures in the Accounts Payable/Encumbered columns was suggested.

Olsen

- b. Payments and Subscriptions. No action.

- c. Funding. No action.

3. Task Schedules.

- a. Passeriformes Taxonomic Directory. Additional card sorting locations at both the University of Minnesota and in DNR have been located.

The passeriformes cards have all been punched once. Editing is proceeding and a printing date should be identified by the time of the next meeting.

Murdfeldt  
Hastings  
Olsen

- b. Annual Reports. No action.

- c. Studbook and Pedigree Analysis. Progress continues. Nate will have some results available for Bridgwater by mid-afternoon April 1. Kim will pick up the output at Lauderdale and duplicate as necessary.

Flesness  
Hastings  
Bridgwater

Nate suggested that a Xerox of relevant Species Distribution Report data be sent to each studbook keeper, beginning with the Snow Leopard Studbook keeper, Dr. Leif Blomquist, Helsinki Zoo, Finland, who has recently contacted ISIS.

Bridgwater will see that the Bowman horse data, now in Brad's possession, is duplicated for use by Nate and ISIS.

Bridgwater

d. Phase 8 Completion. No action.

e. Reptiles and Amphibians. No action.

f. Physiological Norms. A planning meeting must be held between Olsen, Flesness and Makey to get Phase 3 completed. ISD must be contacted for programmer assignment.

Olsen

4. Scientific Papers and Other Reports. No action.

5. Publicity. No action.

6. Professional Meetings. Bridgwater will attend the AAZPA Mid-Year meeting April 2, 1977. AAZPA-ISIS relationships will be discussed and funding requests presented.

7. Records Problems and Requests from Subscribers. No action.

8. The next regular meeting of the ISIS Control Group will be held on April 14, 1977 at 8:00 AM in the conference room of Building A.

RECORD OF MEETING

NAME: INTERNATIONAL SPECIES INVENTORY SYSTEM  
DATE: March 17, 1977  
PRESENT: Hastings, Olsen, Murtfeldt, Flesness, Makey,  
Scobie, Bridgwater  
PURPOSE: ISIS Project Control Group - Meeting #3

ACTION BY

1. Organization and Procedures.

- a. Office Operations. Job descriptions for Olsen and Hastings have been reviewed and submitted to Personnel.

The investigation of potential CETA employees is continuing. The idea would be to secure two individuals if possible. Further checking with Mary O'Neill should be done.

Olsen

Murtfeldt will be moving to the Animal Records area on March 29. Two needs were identified with regard to cleaning up ISIS tasks as follows: 1) production of the quarterly report for the USDI which should be available for mailing by April 10; and 2) the completion of the bird taxonomy through to printer-ready copy.

Murtfeldt  
Olsen

A discussion of the move to the Main Building and office equipment transfer as it affects ISIS was discussed. ISIS will remain at its present location. Bridgwater indicated that the IBM Selectric originally with ISIS will stay in the ISIS office. It was agreed that investigation of additional storage space would be made. At present the use of the telephone system space is questioned. It was agreed that an assessment of equipment needs and space requirements would be provided at the next meeting.

Olsen

Bridgwater will check with House regarding the location of the MZG records-keeping activity.

Bridgwater

- b. Contracts. No action.

- c. AAZPA-ISIS Relationships. A discussion of the subject was again conducted. It was indicated that the approach to the AAZPA would be to allow an AAZPA-ISIS representative answering to the President and Board. No formal relationship committee would be recommended and ISIS would retain its identity. Bridgwater will discuss this with the Executive Secretary, Bob Wagner, and make a presentation at the Mid-Year Meeting of the AAZPA, April 2.

Bridgwater

2. Cost Control.

- a. Budget. The monthly budget was presented. A discussion of operating costs was held. It was agreed that xerox records should be divided between actual ISIS operations and those elements which would be considered general support such as handling of quarterly reports, reports to the AAZPA, and the like being assigned to general support.

ACTION BY

It was also agreed that in the near future phone charges would be identified and billed back. A discussion of the general financial support by subscriptions ensued. Data indicates that perhaps 18-20% of the routine costs of census processing was not being covered by the billings. Also, enhancements or corrections costs were running perhaps \$4,000 to \$5,000 annually and should be added. It was agreed that budget statements should be revised to show projected income, actual income and accounts payable columns for purposes of closer budget planning.

Olsen

b. Payments and Subscriptions. The problem of low bird cost estimates was again discussed. Possibility of an annual report minimum charge of \$50 for users having little or no data in the system was discussed.

c. Funding. Seal's \$30,000 autopsy subsystem grant still holding.

Seal

No response from Zoopreme people yet.

Bridgwater

\$20,000 USDI request still pending. It was noted that Ogilvie had requested two sets of fiche to Dr. Brown in care of USDI office. This has been done.

3. Task Schedules.

a. Passeriformes Taxonomic Directory. Dale noted that card processing equipment will be absent from VA Hospital by approximately July 1. Nate indicated the U of M is available and Olsen will investigate what is available at ISD.

Olsen

It was further indicated that the passeriformes cards should be stored in files as they are difficult to work with otherwise. It was noted that there are 42 pages left but that the printout would be accomplished by March 22 exclusive of editing. Discussion of the introduction was held. It was agreed that only variations in Volume II would be noted in the introduction. It was noted that we need a typist to do the appendices which would involve 30 to 40 pages.

Murtfeldt  
Olsen

b. Annual Reports. No major problems were noted. It was indicated that it costed \$33 per hard copy and that there may be a cheaper way to produce the copy. Olsen will investigate.

Olsen

c. Studbook and Pedigree Analysis. Everything is progressing and no action or major discussion occurred. Bridgwater still needs to supply Nate with Bauman data.

Bridgwater

Shortcut tiger material should be available by April 1.

Flesness

d. Phase 8 Completion. A meeting following the current meeting was held with Murtfeldt, Makey, Scobie, Flesness and Olsen to clarify Phase 8, content and report format. The suggestions developed there have been forwarded to Dorothy who will provide sample formats for the next meeting if possible.

Olsen

e. Reptiles and Amphibians. No action. Date for punching remains September/October 1977.

## ACTION BY

- f. Physiological Norms. It was indicated that Phase III data extraction costs may possibly be reduced to less than \$700-\$800 originally estimated. Further, this will be completed in about two weeks.

Flesness  
Makey

Scobie continues to develop basic format and plans.

Scobie

Key punching test programs will still occur around the first of May and the system can be functional by June 1.

Seal  
Scobie  
ISIS Staff

4. Scientific Papers and Other Reports.

- a. The final mid-year report was reviewed.

A possible paper on ISIS was discussed for the Journal of the American Society for Information Science. This is being reviewed and a senior author will be identified if appropriate.

Bridgwater  
ISIS Staff

5. Publicity. No action.

6. Professional Meetings. No action.

7. Records Problems and Requests from Subscribers. General discussion of errors in the annual reports were discussed. It was indicated that they appear to be of minimal magnitude.

8. The next regular meeting of the ISIS Control Group will be held on March 31 at 8:00 AM in the conference room of Building A.

It was agreed that data in the computer for non-participating zoo should remain there.

RECORD OF MEETING

NAME: INTERNATIONAL SPECIES INVENTORY SYSTEM  
DATE: March 3, 1977  
PRESENT: Bridgwater, Flesness, Makey, Murtfeldt, Scobie  
PURPOSE: ISIS Project Control Group - Meeting #2

ACTION BY

1. Organization and Procedures.

- a. Office Operations. A new job description for the ISIS Systems Manager is still pending.

Murtfeldt  
Olsen

Preliminary investigation concerning CETA indicates we can get three month clerical support for \$2.30 per hour and that if a project of one year or less can be defined, a person could be available for up to \$10,000. It was agreed that this would be pursued with an eye toward using individuals for processing of historical data and light clerical.

Murtfeldt  
Olsen

- b. Contracts. Nate has supplied the appropriate number. Dale's contract will be further looked at when Nate identifies his data needs. Paul's contract is okay until July 1. On or before June 1 this should be revised as an extension into the next fiscal year.

Olsen  
Bridgwater

- c. AAZPA-ISIS Relationships. A draft of an AAZPA-ISIS Relationship was reviewed. Comments were requested so that a final document can be prepared for presentation at the Mid-Year meeting of the AAZPA Board.

All Staff  
Bridgwater

2. Cost Control.

- a. Budget. The monthly budget was presented by Murtfeldt. It was suggested that the income from zoos based on last year's figures was a more realistic planning number and should be shown. Also suggested that ISD should be split into production and non-production items.

Olsen

- b. Payments and Subscriptions. Additional data is still needed with regard to running costs and this area was requested to be held until the next meeting.

Olsen  
Makey  
Scobie

- c. Funding. There was no report on Dr. Seal's exploration of the \$30,000 autopsy subsystem grant from NIH. This is still holding.

Seal

There has been no response from the Zoopreme people regarding their grant proposal.

Bridgwater

Letters of thanks have gone out for the AAZV Phys Norms contribution of \$2,000.

The \$20,000 USDI request is still pending. A report was circulated indicating that it had been transmitted to Rick Parson's desk with a favorable recommendation.

## ACTION BY

3. Task Schedules.

- a. Passeriformes Taxonomic Directory. It was reported that a first run would be available on March 11 with no editing and that at the end of April it would be ready for review. It was also noted that covers are being printed.

Hastings  
Murtfeldt  
Olsen

- b. Annual Reports. It was reported that these have been mailed.

It was also noted that a National Inventory and copies of fiche had been mailed to Parsons, Bavin, Shriner, and Wagner. Also, 10 hard copies of the report had been ordered. One of these has been sent to San Diego.

- c. Studbook, Pedigree Analysis. A discussion took place concerning status of this area. Nate indicated that a shortcut tiger analysis is still to be ready by April 1 for the Mid-Year AAZPA Board meeting and that versions of the oryx, tiger, golden marmoset and horse could be available for the SSC meetings after April 21.

Flesness  
ISIS Staff

It was also agreed that Bridgwater would supply Nate with the Bauman data recently forwarded to Brad House. It was also noted that there was an inclination to utilize the visual approach as a useful tool in the analysis of pedigree data by lay persons.

- d. Phase 8 Completion. Makey and Flesness are still pursuing the edit error transfer between ISD and U of M systems.

The area of historical data was noted. Estimated that there were approximately 400 death records and perhaps as many as 15,000 SA and SF records to be recorded. This is the area where a temporary employee could be used. It was further estimated that it would take 50 days to keypunch. Work is proceeding.

Makey  
Olsen  
Flesness

It was further noted that the order Males and Females was not inverted and that some mistakes had been made at ISD which might possibly be subject to some reimbursement.

Jan and Dorothy are reviewing the Phase 8 program. It was concluded that Dorothy will write a Dylacor program sorted by institution code, taxonomic code and specimen ID with page breaks between institution and formatted to serve as a source document for keypunching.

Billing for these program changes will be done under Phase 8 #4.

- e. Reptiles and Amphibians. Status is still as before with material ready for punching by September/October 1977 and related to a time when ISIS staff feels they are ready to punch materials.

Seal  
Olsen

- f. Physiological Norms. This program is proceeding. Evidently Dorothy can be involved in this system. It was indicated that the Topo and Etio tapes which could be used will cost about \$700-\$800 each and then \$20 per run.

Paul Scobie discussed basic format and plans. It was indicated that a final form is needed and that test sheets can be created from available data.

Scobie

Further discussion occurred with regard to an animal terminating in one institution and transferring into another. Basic question was

whether this was privileged information. It was agreed that the second institution should simply ask for the data from the first but that the information would be available to develop general norms in the system.

Still anticipated that the system could function by June 1 and that key punching test programs will take around two days and targeted for the first two weeks of May.

Scobie  
ISIS Staff

4. Scientific Papers or Other Reports.

- a. A mid-year report to the Board was reviewed briefly. In summary it is essentially as for the last annual report except that new numbers have been used in the updating.

It was noted that this report would be mailed on Saturday, March 5, to the AAZPA offices.

Bridgwater

It was also noted that the procedures manual was finally edited and anticipated that it would be mailed in mid-March.

ISIS Staff

5. Publicity. It was noted that a news article was appearing in the National Enquirer. This was through a contact to Linda's office and that a photographer had come and taken pictures of the ISIS office and the ISD computer system.

6. Professional Meetings. None were indicated. It was pointed out that Bridgwater would attend the SSC meetings in Morges in late April. Dates have not been established.

7. Records Problems and Requests from Subscribers. A discussion occurred with regard to the issuing of a brief newsletter among the users, particularly the data recorders. This would point out common errors, encourage specific action and in short create a feeling of cohesiveness to the group. This will be further discussed.

ISIS Staff

Bridgwater gave a brief report on data which had been developed by Jan with regard to the error rate for ISIS. The overall error rate is approximately 6% with a specific test case analysis of 15 major contributors indicating an error rate of 5% with roughly 5.9% of the errors being attributable to the data recorders and .1% attributable to ISIS.

8. The next regular meeting of the ISIS Control Group will be held on March 17 at 8:00 AM in the Building A Conference Room.

Items to be discussed at that time include: 1) work spaces, present and future; 2) egg lay data; 3) report format and counters; and 4) data in computer for non-participating zoos.

INTRA-OFFICE MEMO

ISIS

TO: ISIS CONTROL GROUP

FROM: Jan Olsen

DATE: 2 Mar. 1977

SUBJECT: Response to Action Items of 10 February 1977 Meeting

3e. Attached is a summary of my meeting with Dorothy Swanson on 22 February 1977.

Additional Comments:

ACTION

II. 1. Death Record Report

400 BA records with G or H code.  
Dorothy has been authorized to run report.

2. SA and SF Records.

Approximately 15,000 records (1/6 the variable file).  
Most are SF. Dorothy will run when notified.

Linda

[Records: 15,000 deletions and 15,000 additions.  
@ rate of 600 records/day - 50 days keypunching.]

III. Item 11 - attached is a description of the change. Please clarify and send expanded definition to Dorothy.

Linda

IV. Please schedule discussion of Report Format and counters for next meeting.

Don

Action Items not performed:

2b. I have no data on Cost Control.

3f. No reptile estimate yet.

3g. No Phys. Norms action yet.

## Office Memorandum

DEPARTMENT ISIS - MZGTO : Dorothy Swanson  
ISD

DATE: 25 February 1977

FROM : Jan Olsen  
ISIS - MZGPHONE: 432-9000SUBJECT: Phase 8 Progress Review Meeting, 22 February 1977PRESENT: Dorothy Swanson, ISD  
Jan Olsen, ISIS

## DISCUSSION SUMMARY;

- I. Jan reviewed and accepted the corrections and alterations on the Species Distribution Report.
- II. Discussed the most efficient and economical way to produce reports on:
  1. Death records having the old cause of death codes:
    - G. Parasites
    - H. Metabolic

2. Current contents of SA Studbook Specimen records and SF Tag/Tattoo/House Name records

Considered: STRATA, DYLA KOR, COBOL

Concluded: Dorothy will write DYLA KOR programs: report on 8 1/2x11 paper, sorted by Institution Code, Taxonomic Code, and Specimen ID, page breaks between institutions, and formatted to serve as a source document for keypunching.

- III. Discussed Phase 8 #2 and Phase 8 #2, a subset:

- Phase 8 #2
- Item 1 CIRCUMSTANCE OF DEATH CODES will be entered upon notification. Change CAUSE to CIRCUMSTANCE.
  - Item 2 CARCASS DISPOSITION CODE "I" - Rendered will be entered upon notification.
  - Item 11 FREQUENCY OF SPECIES DISTRIBUTION REPORT has not been changed from yearly to quarterly.

Phase 8 #2, a subset Item 1 INVERSION OF FEMALE/MALE COUNTERS has not been done.

Concluded: Dorothy will work on these programming changes and bill them under Phase 8 #4.  
Jan will provide better definition of Item 11.

ISIS - Vital Statistics

Phase 8

26 April 1976

Item 1

Invert Order of Female/Male Counters

- A. This change affects the complete Specimen Inventory (SS05), the Demand Specimen Inventory (SS06), the Annual Institution Report (SS07) and the Demand Institution Report (SS08) subsystems. The reports affected are the Specimen Inventory Report (OD-795) and the Zoo Inventory Report (OD-793).
- B. This change will involve inverting the order in which the counters for male and female are displayed on the forementioned reports. The currently existing order is female, then male. This will be reversed to read male, then female.
- C. Cost Estimate:

Program Analysis	25 hours	\$326.25
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Specific Requirements (cont.)

11. Frequency of Complete Specimen Inventory (SS05)  
Frequency should be changed from yearly to quarterly.

## RECORD OF MEETING

**NAME:** INTERNATIONAL SPECIES INVENTORY SYSTEM  
**DATE:** February 10, 1977  
**PRESENT:** Bridgwater, Flesness, Hastings, Makey,  
Murtfeldt, Olsen, Scobie, Seal  
**PURPOSE:** ISIS Project Control Group - Meeting #1

**ACTION BY**

### 1. Organization and Procedures.

- a. Structure of the ISIS Control Group. It was agreed that the members of the newly-formed ISIS Control Group would meet every two weeks according to the schedule to be mailed, but basically scheduled for 8:00 on Thursday mornings before PCG meetings. The next meeting of the group will be March 3 at 8:00. Bridgwater will serve as chairman for a period of time and then transfer chairmanship.

Beginning approximately April 1 Murtfeldt will be assuming responsibilities as MZG Zoological Records Keeper in the Animal and Plant Sciences Department and Jan Olsen will become ISIS Systems Manager. A new job description must be done for both positions. A discussion was held regarding possibility of additional help through the CETA program. Murtfeldt will investigate and report.

Bridgwater  
Murtfeldt  
Olsen

- b. Contracts. It was pointed out that contracts of Nate, Dale and Paul should be reviewed. Nate will supply an appropriate number. Paul's contract should be reviewed and renewed. Dale's contract should be reviewed with future months in mind.

Flesness  
Bridgwater  
ISIS Staff

- c. AAZPA-ISIS Relationships. This interface was discussed at some length and a letter of agreement between Bridgwater and the president of AAZPA was referred to. It is expected that a proposal will be ready for presentation to the mid-year meeting of the Board, and Bridgwater will develop a basic outline proposition for review at the next meeting.

Bridgwater

### 2. Cost Control.

- a. Budget. Murtfeldt will develop a format in somewhat more detail than that presented to the Board monthly. Its primary objective would be to keep a running account which can be reviewed monthly against our goals, objectives, timetables, and needs, and reviewed at each ISIS Control Group meeting.

Murtfeldt  
Bridgwater  
Olsen

- b. Payments and Subscriptions. A discussion of charging costs for reports, the subscription fee program, and special printouts were discussed. It was agreed that by next meeting some data will be in hand in regard to running costs, etc. and this subject further explored.

Olsen  
Makey  
All Committee

## ACTION BY

- c. Funding. It was agreed that Seal should explore the possibility of a \$30,000 autopsy subsystem grant from NIH.

Seal.

It was also agreed that Zoopreme should be contacted with regard to the grant proposal there. Bridgwater will prepare a letter.

Bridgwater

The current status of an additional \$20,000 funding for studbook and pedigree analysis was discussed including a memo relating to a telephone conversation on the subject between Rick Parson's assistant and Bridgwater. A letter is expected from USDI detailing the likelihood of such a request to be granted at some point near September 1, 1977. It was agreed that a copy of the National Inventory Printout complete should be mailed immediately to Parson's attention when ready.

Murtfeldt

A \$2,000 check for Physiological Norms has been received from the AAZV. Seal will write a personal letter. Bridgwater will write an ISIS letter acknowledging receipt.

Seal  
Bridgwater

3. Task Schedules. The following tasks were discussed and general time lines and data needs established:

- a. Passeriformes Taxonomic Directory. It was agreed that passeriformes could be keypunched and a copy available by March 11 with the package ready for distribution by the end of March if full-time support is available.

Hastings  
Murtfeldt

- b. Annual Reports. It was agreed that the National Inventory could be distributed on or about February 18.

ISIS Staff

It was agreed that ten hard copies of the species distribution report would be produced and that these could be made available to zoos wanting them at a cost to be established, or in selected instances placed at no cost where the need arises.

Bridgwater  
Murtfeldt

- c. Procedures Manual. It was agreed that a final revision, typing, printing, and mailing could be accomplished by the middle of March.

ISIS Staff

It was agreed that the Code E, Old Age Associated, not be made available for use. It was agreed that the topographic code be corrected from skeletal to musculoskeletal. It was agreed that the circumstances of death and autopsy codes be mandatory with the topo and etiological codes being optional. It was agreed that Nate Flesness would revise the definitional explanations of premature and stillborn for review and inclusion.

Murtfeldt  
Flesness

It was agreed that a different title replacing "Name" would be selected in the studbook identification section with appropriate examples for explanation.

Flesness  
Murtfeldt

It was agreed that the category "neonatal" would not be allowed in circumstances of death. It was agreed that a letter of explanation to commenting parties be drafted, reviewed by Seal and Bridgwater and forwarded.

Murtfeldt  
Seal  
Bridgwater

It was also agreed that the item "abnormal sex" would be changed to "chromosomal abnormality" or place the latter in parenthesis.

Murtfeldt

## ACTION BY

- d. Studbook, Pedigree Analysis - Demography. Discussion ranged around the development of studbook and pedigree analysis program using the horse, oryx, tiger or golden marmoset. Flesness pointed out that using short form, using incomplete data cards, a shortcut analysis could be done for the tiger in approximately two months. The horse (also oryx) is essentially done in this regard. He further pointed out that there were three approaches for format -- 1) by studbook number, 2) by institution and number, and 3) by breeding performance in combination with one of the above. The full generation of the tiger will require a great amount of historical inputs (which will take some time and money). It was agreed that the tiger would be the ideal selection for acting as a fully developed studbook model and a target date for completion in September to be made available at the annual AAZPA meeting was agreed upon.

Flesness  
ISIS Staff

It was further agreed that short-cut versions in the oryx, tiger and golden marmoset could be produced for use at the late April SSC meeting and the oryx, horse, and tiger might be available for the April 1 AAZPA Board meeting.

Flesness  
ISIS Staff

- e. Phase 8 Completion. It was agreed that there were only parts of this program such as name, number and tattoo which are required for the development of studbook and pedigree analysis reports. Dale and Jan will check with Dorothy of ISD concerning major programs and will follow through on development. Possibly be done by April 1 or earlier but certainly must be completed before any generation of reports for studbook data is done.

Makey  
Olsen

Also, editing the data base at ISD and U of M to insure a complete edit/error transfer between the two must be accomplished. A solution to this and cost estimates will be provided at the next meeting for completion by April 1.

Flesness  
Makey

- f. Reptiles and Amphibians. Requirements for producing the herp taxonomy was discussed. It was estimated that there would be no more than 6,000 to 7,000 entries. Seal indicated he could have the material ready for punching by September/October of this year and that he would work toward a time identified by ISIS staff when they felt ready to punch the material.

Olsen  
Seal

- g. Physiological Norms. Phase III program is about done but requires modification as it cannot use the strata tapes. It was suggested that the IBM packed decimal format was appropriate if the University computer can use it. It was also pointed out that the institutional taxonomic tapes, Nate's pedigree analysis program and the Topo and Etio tapes can be used.

Makey

It was agreed that Dorothy at ISD must be contacted with regard to further development of this material and this would be dependent upon Dorothy's schedule.

Olsen  
Makey

It was noted that Paul can write the programs following Dorothy's involvement. So much depends on whether Dorothy will be allowed by ISD to work on the Phys Norms system. It was suggested that if necessary, arms should be twisted to see if this can be accomplished; talking to Swartz, etc.

Olsen  
Makey  
Bridgwater

## ACTION BY

It should be functional by June 1. It was estimated that keypunching the Phys Norms test program would take two days around the first to the 15th of May.

ISIS Staff  
Scobie

It was also suggested that Ulie and Paul should work together on output formats and examples and it was agreed that a theoretical development similar to the one Nate did could be completed by next month, hopefully concurrent with Dorothy's finishing her work.

Scobie  
Seal

4. Scientific Papers or Other Reports.

- a. A mid-year report to AAZPA must be completed by the 11th of March, 1977. This would follow the same format as the annual report this fall, and an effort to reduce it even further will be made.

Murtfeldt  
Bridgwater  
(Review by  
Committee)

No other papers or reports were discussed but it was pointed out that all documents required for public presentation or reports in the same nature would be reviewed by Dennis Meritt, Chairman of the WCMC as per agreement between Bridgwater and the president of AAZPA.

Bridgwater

5. Publicity. No discussion at this meeting.

6. Professional Meetings. No discussion at this meeting.

7. Records Problems and Requests from Subscribers. No discussion at this meeting.

8. The next regular meeting of the ISIS Control Group will be held on March 3 at 8:00 AM in the Building A Conference Room.