# FISH-COLLECTING RECORDS ON A HOME COMPUTER

by Konrad Schmidt, St. Paul, MN

When I first began seriously collecting native fishes many years ago, I would keep all locations in my head, as many fishermen remember their favorite fishing holes. This worked very well in the beginning, because I would collect from the same four or five sites every year. As my interest in the hobby grew, however, I started collecting from many new sites, and I realized that my memory could no longer keep my collection records in order. I thought that keeping notes of collections would help, but I could not keep the information organized. This made it very difficult to use the notes for any future references.

One day I took a second look at our home computer, which I'd never used. It occurred to me that if it could balance a check book, it should be able to keep my collection records organized. I pursued the idea, and decided to look at some software programs. I found one called dBASE II that looked as though it would fit my needs. I admit that it took some work in the beginning, and I made many very frustrating mistakes, but it was definitely worth all the effort I put into it. The following computer print-out is a sample of the finished format. [Retyped for AC--Ed.]

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FISH COLLECTION RECORDS

| COMMON NAME | SCNTFC. NAME (ABBR.) | LOCATION: TWP-RGE-SEC | COUNTY NUMBER | QTY. | DATE YR-MO-DA | FAMILY CODE |
|---|---|---|---|---|---|---|
| CHANNEL CAT | I.PUNC | MISS.R/28-23-8 | 62 | N/A | N/A | AJ |
| CHANNEL CAT | I.PUNC | MINN.R/27-23-7 | 27 | N/A | N/A | AJ |
| OZARK MADTOM | N.ALBA | FLAT C/RD#39-CATO,MO | 00 | 20 | 83-9-2 | AJ |
| SLENDER MADTOM | N.EXIL | FLAT C/RD#39-CATO,MO | 00 | 11 | 83-9-2 | AJ |
| STONE CAT | N.FLAV | MISS.R/28-23-17 | 62 | 1 | N/A | AJ |
| STONE CAT | N.FLAV | ROCK R/102-45-11 | 67 | 1 | 83-8-6 | AJ |
| TADPOLE MADTOM | N.GYRI | MISS.R/145-31-25 | 18 | 1 | 81-9 | AJ |
| TADPOLE MADTOM | N.GYRI | CROWWING R/133-32-12 | 49 | N/A | 83-5 | AJ |

I had the computer organize the information by sorting on the scientific names and the family codes. This arranges the records alphabetically in groups by families, with the individual species also organized alphabetically within each family. I will use an example from the above sample to explain the organization of these records. The common name, Stone Cat, is the one I prefer to use because it is understood by all the people I collect with. The abbreviation for the scientific name Noturus flavus is used because of space limitations. The location begins with the name of the lake, river, or stream, followed by the township, range, and section number. This narrows the site down to one square mile. This still seems like a very large area, but my collections

are mainly confined to areas around bridge crossings and public accesses which are shown on most county maps. The county number 67 is the code for Rock County. This serves as an index to find the correct map,and eliminates guesswork. Collections made outside of Minnesota have a 00 county number. The number under the quantity column indicates the number of specimens taken at that site. The date 83-8-6 is not in the generally used order, but means August 6, 1983. This is the only format the computer would accept when instructed to list records on a yearly basis. The letters AJ are the code for Siluriformes, which include all members of the catfish family.

This program also has a feature to retrieve a specific kind of information, as demonstrated in the two examples shown below.

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  LIST FOR FAMILY - "AV"
00188  MOTTLED SCULPIN   C.BAIR EAUGALLE R/SF.VAL,WI 00 N/A N/A      AV
00189  MOTTLED SCULPIN   C.BAIR RUSH R/ELLSWORTH,WI  00 N/A N/A      AV
00190  BANDED SCULPIN    C.CARO CURRENT R/HWY.160,MO 00  3  83-9-2   AV
00191  SLIMY SCULPIN     C.COGN VALLEY C/28-20-9     82  4  82-7     AV
00192  SLIMY SCULPIN     C.COGN KAWISHIWI R/62-11-33 38  1  83-10-8  AV

  LIST FOR GENUS="P.OMIS"
00073  TROUT PERCH       P.OMIS MISS.R/145-31-25     18  1  81-9     AR
00074  TROUT PERCH       P.OMIS MISS.R/28-23-20      27 32  83-7-27  AR
00075  TROUT PERCH       P.OMIS MISS.R/28-23-17      62  3  83-7-29  AR
00076  TROUT PERCH       P.OMIS KAWISHIWI R/62-11-33 38 15  83-10-8  AR
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This feature has been a tremendous help to me in planning collection trips. It eliminates the need to refer back to my disorganized notes, which frequently caused me to miss some of the information I was trying to find. I now have control over how general or specific the information has to be by instructing the computer to search on any one of the seven columns. The first example found all the records for the sculpin family. It is more general than the second example, which found all the records for just one species.

I have found what I believe is another useful purpose for these records. The Minnesota Nongame Program strongly encourages interested residents to keep and submit observations of any nongame species for the program's data base. I am the only person at this time providing information on fish species, but I hope it will someday help to insure the proper management and preservation of all species native to Minnesota.

This computer program is my first attempt to make my records more manageable, and I am satisfied with the results. There is always room for improvement, however, and I would welcome any comments or suggestions from NANFA members who may have undertaken a similar project.

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## Tables & Notes

### I. FISH FAMILY CODES

| | ORDER:FAMILY |
|---|---|
| AA | PETROMYZONTIFORMES:PETROMYZONTIDAE |
| AB | ACIPENSERIFORMES:ACIPENSERIDAE AND POLYODONTIDAE |
| AC | ANGUILLIFORMES:ANGUILLIDAE |
| AD | CLUPEIFORMES:CLUPEIDAE |
| AE | OSTEOGLOSSIFORMES:HIODONTIDAE |
| AF | SALMONIFORMES:SALMONIDAE,OSMERIDAE,UMBRIDAE,ESOCIDAE |
| AG | CYPRINIFORMES:CYPRINIDAE AND CHARACIDAE |
| AH | CYPRINIFORMES:CATOSTOMIDAE |
| AJ | SILURIFORMES:ICTALURIDAE |
| AK | PERCOPSIFORMES:AMBLYOPSIDAE,APHREDODERIDAE,PERCOPSIDAE |
| AL | GADIFORMES:GADIDAE |
| AM | ATHERINIFORMES:CYPRINODONTIDAE |
| AN | ATHERINIFORMES:POECILIIDAE |
| AP | ATHERINIFORMES:ATHERINIDAE |
| AQ | GASTEROSTEIFORMES:GASTEROSTEIDAE |
| AR | PERCIFORMES:PERCICHTHYIDAE |
| AS | PERCIFORMES:CENTRARCHIDAE |
| AT | PERCIFORMES:PERCIDAE |
| AU | PERCIFORMES:BLENNIDAE,GOBIIDAE,ELEOTIDAE |
| AV | PERCIFORMES:COTTIDAE |
| AW | ELOPIFORMES:ELOPIDAE |
| AX | LEPISOSTEIFORMES:LEPISOSTEIDAE |
| AY | AMIIFORMES:AMIIDAE |

### II. MINNESOTA COUNTIES AND NUMBER CODES

1 Aitkin
2 Anoka
3 Becker

Etc. Other counties listed alphabetically also, through 87. Out of state sites numbered 00

### NOTES

1. Don Richmond, NANFA member from Ridfield, MN, assisted in providing collecting records.

2. SPECIES LISTED IN COMPUTERIZED RECORDS:Lamprey sp., Lake Sturgeon, American Eel, Gizzard Shad, Mooneye, Rainbow Smelt, Central Mudminnow, Common Stoneroller, Ozark Minnow, Common Shiner, Black Chin Shiner, Spottail Shiner, Red Shiner, Spotfin Shiner, Topeka Shiner, Northern Redbelly Dace, Bluntnose Minnow, Blacknose Dace, Longnose Dace, Yellow Bullhead, Channel Catfish, Ozark Madtom, Slender Madtom, Stone Cat, Tadpole Madtom, Flathead Catfish, Trout Perch, Burbot, Northern Studfish, Goldenear Topminnow, Banded Killifish, Blackstripe Topminnow, Plains Topminnow, Gambusia, Brook Silverside, Brook Stickleback, Green Sunfish, Orange-spotted Sunfish, Western Sand Darter, Mud Darter, Greenside Darter, Rainbow Darter, Bluntnose Darter, Arkansas

Saddled Darter, Iowa Darter, Fantail Darter, Slough Darter, Yoke Darter, Least Darter, Johnny Darter, Orangethroat Darter, Banded Darter, Logperch, Gilt Darter, Blackside Darter, Slenderhead Darter, River Darter, Mottled Sculpin, Banded Sculpin, Slimy Sculpin, Longnose Gar, Shortnose Gar.

FOR PHOTOCOPY OF COMPLETE COMPUTERIZED COLLECTING RECORDS OF KONRAD SCHMIDT, SEND $1.00 TO Bruce Gebhardt, 123 W. Mt. Airy Ave., Phila., PA 19119. Write checks to North American Native Fishes Assn.