

Metadata for White Sturgeon Setline Survey Database.mdb

Contact Information

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Introduction

Setline field sampling for juvenile white sturgeon (*Acipenser transmontanus*, target species) was conducted in order to estimate year-class relative abundance (index) and to understand the effects of environmental conditions on year-class strength. Sampling was conducted in 1991 and from 1995 to 2002. This metadata was written by Jason DuBois on 29-Oct-10 for the purpose of describing the white sturgeon setline electronic database ("White Sturgeon Setline Survey Database.mdb"; database).

Database

This database was created in July 2010 using Microsoft® Access 2002. It contains six tables (Figures 1 and 2). For an explanation of each field in each of the six tables, refer to the print screen for each table (Figures 3 through 8).

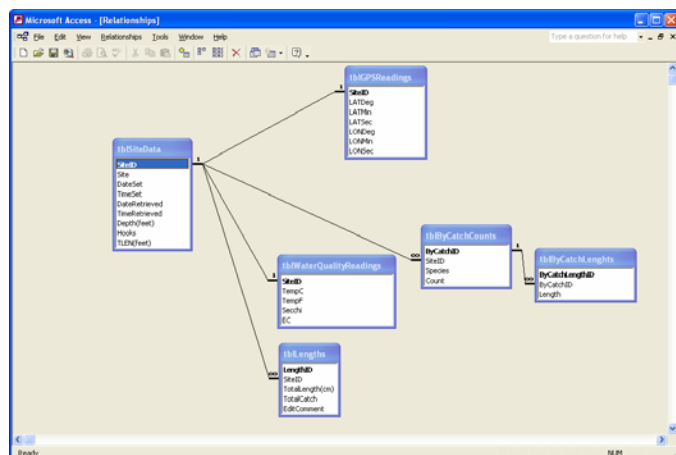
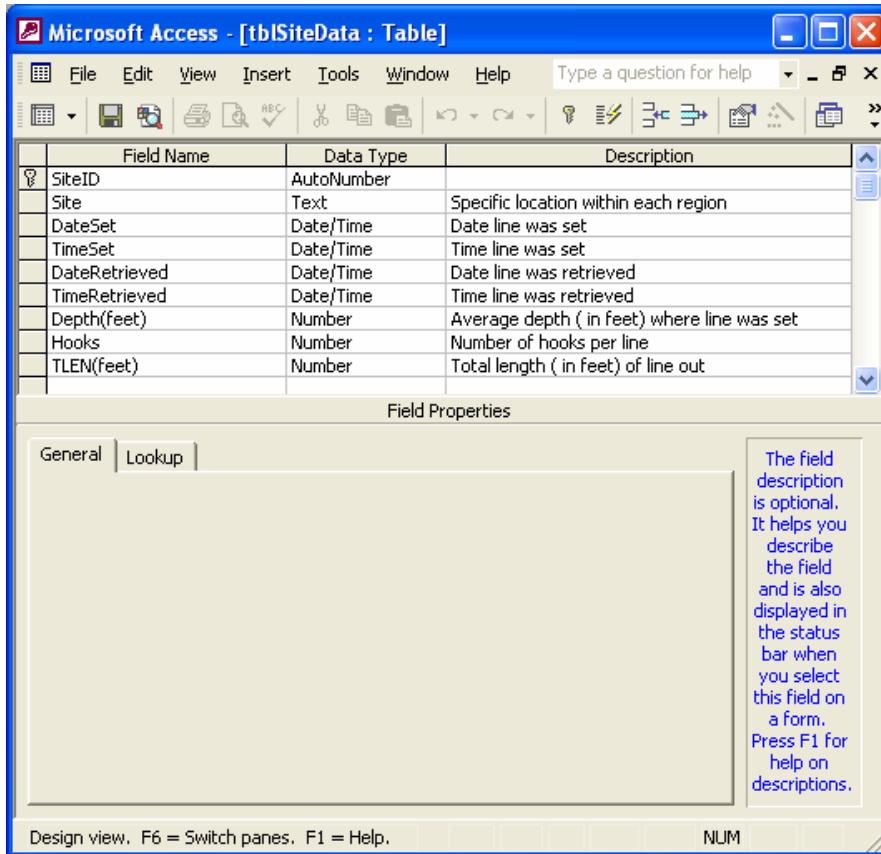


Figure 1. Relation of tables in the database

Name	Modified	Created	Type
Create table in Design view			
Create table by using wizard			
Create table by entering data			
tblByCatchCounts	10/27/2010 2:19:51 PM	7/15/2010 1:48:49 PM	Table
tblByCatchLengths	10/27/2010 2:19:44 PM	7/16/2010 12:08:32 PM	Table
tblGPSReadings	10/29/2010 1:32:10 PM	7/14/2010 9:13:52 AM	Table
tblLengths	10/27/2010 2:19:58 PM	7/14/2010 9:50:49 AM	Table
tblSiteData	10/29/2010 1:53:36 PM	7/14/2010 8:58:51 AM	Table
tblWaterQualityReadings	10/27/2010 2:27:15 PM	7/14/2010 9:21:53 AM	Table

Figure 2. List of available tables in the database

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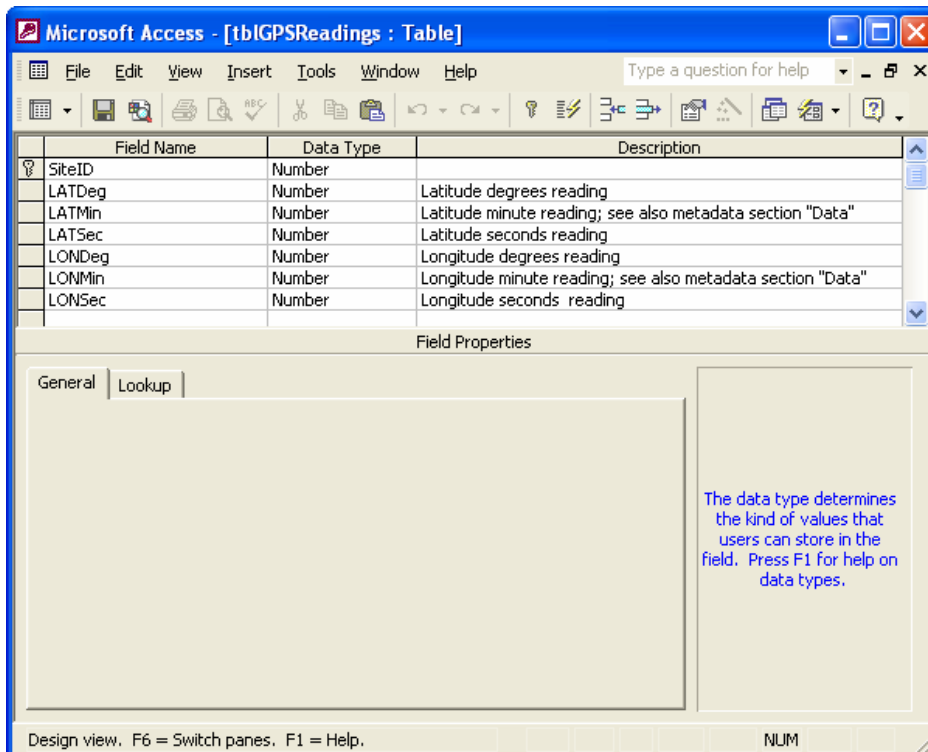
The screenshot shows the Microsoft Access Design view for the 'tblSiteData' table. The table structure is as follows:

Field Name	Data Type	Description
SiteID	AutoNumber	
Site	Text	Specific location within each region
DateSet	Date/Time	Date line was set
TimeSet	Date/Time	Time line was set
DateRetrieved	Date/Time	Date line was retrieved
TimeRetrieved	Date/Time	Time line was retrieved
Depth(feet)	Number	Average depth (in feet) where line was set
Hooks	Number	Number of hooks per line
TLEN(feet)	Number	Total length (in feet) of line out

Below the table structure is the 'Field Properties' pane. The 'General' tab is selected. A text box on the right side of the pane contains the following text: 'The field description is optional. It helps you describe the field and is also displayed in the status bar when you select this field on a form. Press F1 for help on descriptions.'

At the bottom of the window, the status bar indicates 'Design view. F6 = Switch panes. F1 = Help.' and 'NUM'.

Figure 3. Table “tblSiteData” containing date/time set and retrieved data



The screenshot shows the Microsoft Access Design view for the 'tblGPSReadings' table. The table structure is as follows:

Field Name	Data Type	Description
SiteID	Number	
LATDeg	Number	Latitude degrees reading
LATMin	Number	Latitude minute reading; see also metadata section "Data"
LATSec	Number	Latitude seconds reading
LONDeg	Number	Longitude degrees reading
LONMin	Number	Longitude minute reading; see also metadata section "Data"
LONSec	Number	Longitude seconds reading

Below the table structure is the 'Field Properties' pane. The 'General' tab is selected. A text box on the right side of the pane contains the following text: 'The data type determines the kind of values that users can store in the field. Press F1 for help on data types.'

At the bottom of the window, the status bar indicates 'Design view. F6 = Switch panes. F1 = Help.' and 'NUM'.

Figure 4. Table “tblGPSReadings” containing latitude and longitude for each site

Field Name	Data Type	Description
SiteID	Number	
TempC	Number	Water temperature in degrees Celsius
TempF	Number	Water temperature in degrees Fahrenheit
Secchi	Number	Water clarity using Secchi (in cm)
EC	Number	Electric conductivity

Field Properties

General | Lookup

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Design view, F6 = Switch panes, F1 = Help, NUM

Figure 5. Table “tblWaterQualityReadings” containing water temperature, Secchi, and electric conductivity recordings

Field Name	Data Type	Description
LengthID	AutoNumber	
SiteID	Number	
TotalLength(cm)	Number	Total length (in cm) for white sturgeon
TotalCatch	Number	Total catch for each line set
EditComment	Text	Comments for each record

Field Properties

General | Lookup

Field Size: Long Integer
 New Values: Increment
 Format:
 Caption:
 Indexed: Yes (No Duplicates)

The field description is optional. It helps you describe the field and is also displayed in the status bar when you select this field on a form. Press F1 for help on descriptions.

Design view, F6 = Switch panes, F1 = Help

Figure 6. Table “tblLengths” containing total length data for each white sturgeon caught and measured plus total catch (measured and not measured)

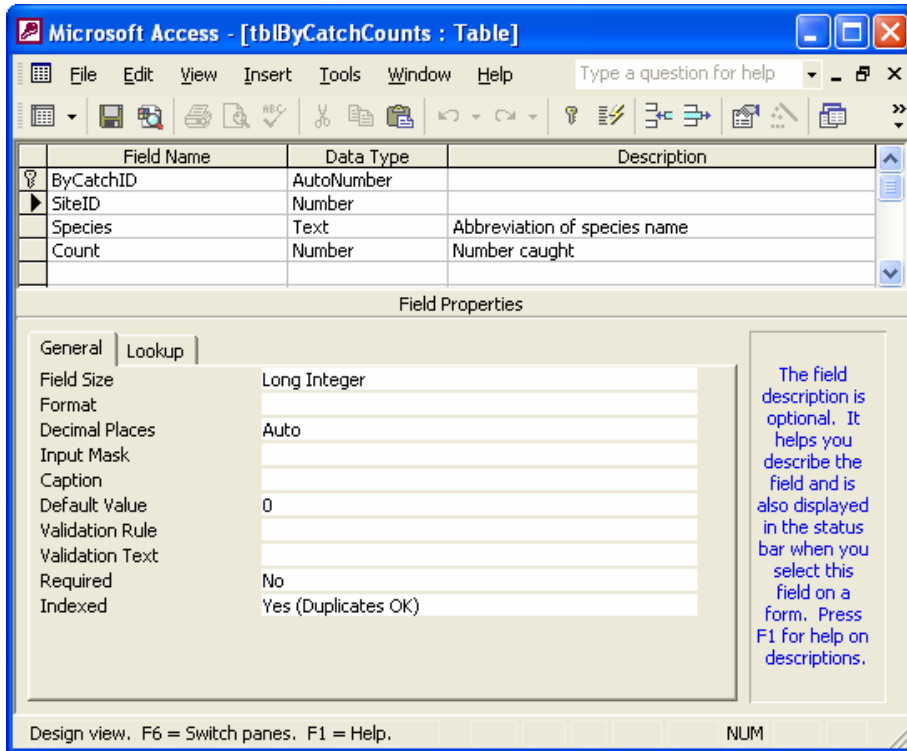


Figure 7. Table “tblByCatchCounts” containing by-catch species abbreviation and number caught

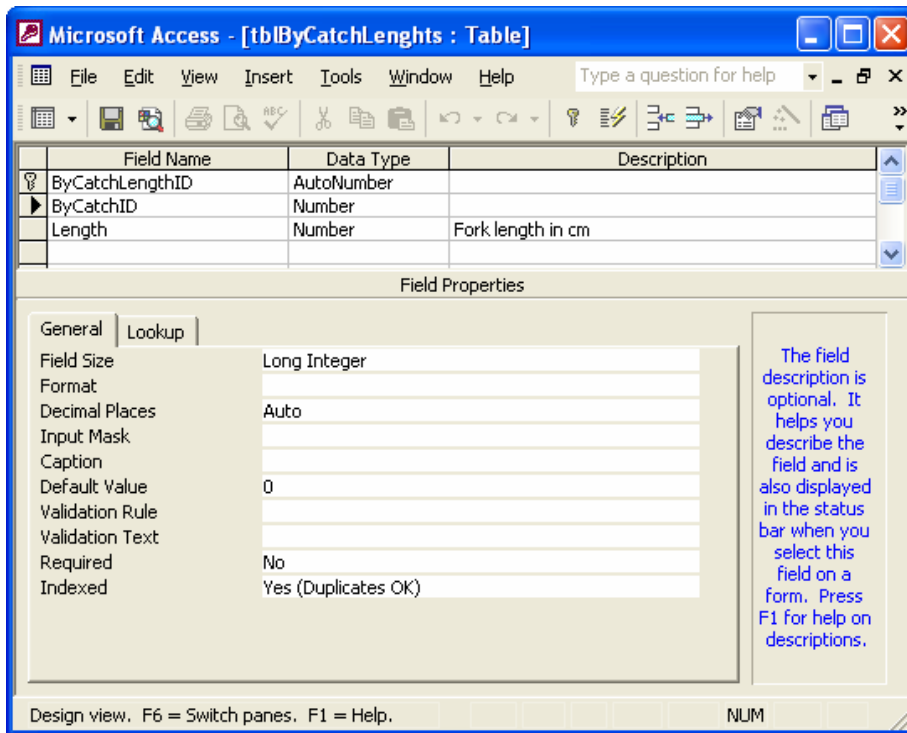


Figure 8. Table “tblByCatchLengths” containing lengths of most by-catch species

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Data

Setline sampling occurred in 1991 and 1995 through 2002. Only site, date set, depth, and total length (white sturgeon) data were recording during 1991 sampling efforts. Thus, catch per unit effort (CPUE) can not be calculated for 1991. For all other years, CPUE cannot be calculated where any one of date set, time set, date retrieved, or time retrieved is missing.

A complete line-by-line edit was done of the database in July 2010. All records housed in the database were checked and verified against the field datasheets. Fourteen records were not used in the calculations of catch per 100 hook-hours due to various reasons that greatly reduced effort (Appendix 1).

Latitude and longitude measurements were recorded on the datasheets in either one of two formats: (1) DDD° MM' SS.S" (degrees, minutes, seconds) or (2) DDD° MM.MMM' (degrees, decimal minutes). When fields "LATSec" or "LONSec" are blank and data in fields "LATMin" or "LONMin" are in decimal format in the electronic database, the format is most likely degrees, decimal minutes.

We do not have calibration records of any equipment used to measure temperature, water clarity (Secchi), or electric conductivity (EC). Electric conductivity data was recorded mostly in μmhos . Sometimes it appeared EC was recorded in mmhos . Potentially, units of EC readings under 100¹ were mmhos and not μmhos .

By-catch was recorded and sometimes measured. By-catch abbreviations (as entered in the database) and common names are in Table 1.

Table 1. By-catch species from setline survey sampling

Species abbreviations in database	Species common name
Batray	Batray
BSH	Brown Smoothhound
CHC	Channel Catfish
Cottid	Cottid unidentified
Croaker sp	Croaker unidentified
GST	Green sturgeon
LPS	Leopard Shark
SacBlackfish	Sacramento Blackfish
SASQ	Sacramento Pikeminnow
SPD	Spiny Dogfish
SPT	Sacramento Splittail
SSC	Staghorn Sculpin
StarryFlounder	Starry Flounder
STB	Striped Bass
SVG	Sevengill Shark
ThresherShark	Thresher Shark
WCK	White Croaker
WHC	White Catfish

¹ 24 records as of 03-Aug-2010

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Appendix

Appendix 1. 14 records with poorly documented effort

SiteID	Site	Date Set	Time Set	Date Retrieved	Time Retrieved	Problems with data
155	Honker-Middle Ground	18-Sep-96	10:40	19-Sep-96	9:45	Line cut and anchor stolen
8	Baldoccis Ldg	15-Oct-96	9:00	16-Oct-96	9:05	Major weeds on all hooks
345	Seal Island	21-Oct-96	10:40	22-Oct-96	9:30	Line stolen
349	South Broad Slough	13-Nov-97	11:25			Gear missing - reported to wardens
344	Grizzly Bay-dolphin	18-Nov-97	13:20	19-Nov-97	9:35	Half ground line gone
90	Grizzly Bay-dolphin	9-Nov-98	11:10	10-Nov-98	11:55	Buoys and anchors stolen
312	Suisun Bay-Garnet Pt.	9-Nov-98	12:05	9-Nov-98	12:20	"No fish, no bait"; only fished 15 minutes(?)
341	Lower Mothball	18-Mar-99	11:45			Comments = "Gone"
93	Grizzly Bay-dolphin	22-Jun-00	11:20	23-Jun-00	9:30	# of hooks not clearly recorded
342	Seal Island	27-Jun-00	8:15	28-Jun-00	10:50	Don't know how many hooks set
33	Broad Slough South	24-Jul-01	11:25	25-Jul-01	7:45	# of hooks not clearly recorded
338	Ryer and Roe Island	26-Jun-02	11:00	28-Jun-02	14:15	Incomplete datasheet
339	Mothball Fleet	26-Jun-02	10:00	27-Jun-02	9:45	Incomplete datasheet
340	South Hampton	26-Jun-02	9:00			Incomplete datasheet; Comments = "Lost"