

CHAPTER 7.

FYKE NET ASSESSMENT METHODS FOR FISH ASSEMBLAGES IN GREAT LAKE COASTAL WETLANDS

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I. PURPOSE

To describe methods for sampling fish assemblages in Great Lake coastal wetlands using fyke nets for the purpose of developing biological criteria and assessing water quality. This method is adapted from Brazner (1997) and Wilcox et al. (1999).

II SCOPE/LIMITATIONS

This procedure applies to all sites that will be sampled for fish communities for developing biological criteria and for an integrated assessment of water quality. Data for this analysis will include collecting data on fish community composition, species richness, CPUE, and DELT anomalies.

III GENERAL INFORMATION

The methods described in this assessment are to be applied to all wetland sites including: 1) randomly selected EMAP sites chosen to help characterize a particular resource or region, 2) reference sites selected to determine the reference condition of a particular region of the state, 3) degraded sites selected to aid in calibrating the Index of Biotic Integrity, 4) problem investigation sites selected to evaluate a specific source of pollution. This method is not to be applied to sites that are determined to be unsampleable based on reasons in Chapter 1. Although the reasons for visiting a particular site may vary, the fish sampling procedures in this document applies to all site types unless otherwise noted. This procedure must be implemented simultaneously with an assessment of habitat (Chapter 2), macroinvertebrate communities (Chapter 4 & 5), or water chemistry (Chapter 8 & 9).

IV REQUIREMENTS

Personnel conducting this procedure must be certified to operate boats and be capable of identifying freshwater North American fish species. In addition, the personnel must have excellent map reading skills and demonstrate proficiency in the use of a GPS receiver and an orienteering compass. Because sites may be located miles from the nearest road, it is often necessary to wade through wetlands, canoe or boat, or hike for long distances overland to reach a site. Personnel conducting this procedure must have the physical ability to accomplish this task. The verification form (appendix A) must be used to record pertinent information for each site visit.

- A. Qualifications of crew leaders: The crew leader must be a professional aquatic biologist with a minimum of a Bachelor of Science degree in biology with an aquatic entomology, invertebrate zoology, fisheries, or closely related specialization. Additionally, they must have at least six months experience working under a fish biologist in the areas of community sampling methodology and taxonomy.
- B. Qualifications of field technicians - interns: A field technician must have at least one year of college education and coursework in environmental and/or biological sciences.

V. RESPONSIBILITIES

- A. Field Crew leader: Ensures that data generated under this procedure meets the standards and objectives of the integrated condition monitoring program. Carry out the procedures outlined in the action steps.
- B. Technical personnel: Carry out the procedures outlined in the action steps including equipment stocking, calibration of equipment, data collection, and recording.

VI. QUALITY ASSURANCE AND QUALITY CONTROL

Compliance with this procedure will be maintained through annual internal reviews. Technical personnel will conduct periodic self-checks by comparing their results with other trained personnel. Calibration of equipment will be conducted according to the guidelines specified in the manufacturers manuals.

In addition to adhering to the specific requirements of this sampling protocol and any site supplementary specific procedures, the minimum QA/QC requirements for this activity are the following:

- A. Control of deviations: Deviation shall be sufficiently documented to allow repetition of the activity as actually performed.

- B. QC samples: Ten percent of all sites sampled within any given year are resampled as a means of determining sampling error.
- C. Verification: The field crew leader will conduct periodic reviews of field personnel to ensure that technical personnel are following the procedures according to this SOP.

VII TRAINING

- A. All personnel will receive instruction annually from a trainer designated by the program manager. Major revisions in this procedure will require that all personnel be retrained in the revised procedure by an authorized trainer.
- B. The responsibility of the field crew leader includes training activities that will include instruction in the field, as well as, a field test to ensure that personnel can successfully implement this procedure.

VIII. ACTION STEPS

A. Equipment list

Ensure that the following items are present before implementing this procedure.

Boat

appropriately rated boat motor

8 pair of Fyke nets

Two buckets and miscellaneous sorting chambers

Site verification form, previously completed with attached copies of 1: 24,000 USGS

topographic maps

Latitude and longitude provided by EPA's EMAP program (for statistically based sites only)

County plat maps

State specific atlas and Gazetteer (Delorme)

Aerial photographs

Pencils/Blunt-tipped Sharpies

Permanent/Alcohol proof markers

Labeling tape

Fish sample identification labels

10% formalin, enough to preserve one days worth of samples, ca. 4 L/site

Waterproof notebook

Chest-high waders

Rain-gear

Jars or bottles, in which the sample is to be preserved; preferably non-breakable synthetic, minimum 1 L capacity ("A" and "B" jars)

Box or crate to store sample bottles
Canoe or stream shocker
GPS receiver, battery, and antenna
Flagging
Cellular telephone
Fish board
Scales or weighing balances
35 mm camera
35 mm slide film

B. Data collection method

The objectives of the coastal wetland project are to develop biological indicators specific to Great Lakes coastal wetland types. The project will (1) document the current conditions of wetland habitat, macroinvertebrates, and fish communities in the Great Lakes nearshore coastal wetlands; (2) test the model developed by U.S. Geological Survey (Wilcox et al. 1999) to predict fish community condition, and (3) develop biological expectations for different wetland types among the various ecoregions.

A. Fish field sampling methods:

All fish collected will be identified to species, enumerated, examined for external anomalies, and either returned to the lake or preserved as voucher specimens and stored at the Indiana Biological Survey Aquatic Research Center Museum. Weights will be taken on a representative sub-sample if more than 15 individuals of a species are captured. All fish will be weighed if 15 or less individuals of a species are captured. Each site will have a habitat data sheet filled out for it (see Chapter 2).

There is a general lack of data on fish ecology in coastal wetlands in the Great Lakes (Jude and Pappas 1992). There is even less data on the efficacy of different sampling methods for fish in coastal wetlands. Because of previous studies in these habitats, we have a fairly extensive database on methods efficacy and general fish ecology in Great Lakes coastal wetlands. Based on these studies (e.g. Brazner 1997, Brazner et al. 1998), we have identified several methods variations that should be tested before a final decision is made about specific fish sampling methodologies for the REMAP coastal wetland project. These efforts will also be helpful in groundtruthing REMAP study sites for accessibility and special requirements for sampling in 2001 when the fieldwork is scheduled to begin.

Past studies (Brazner 1997, unpublished data) have indicated that fyke nets may be the most effective gear for sampling fish in coastal wetlands. They have been used effectively in the full range of coastal wetlands that exist in the Great Lakes, they are effective in virtually all microhabitats, and provide a temporally integrated, and representative sample of most fishes that occur in coastal wetland habitats. Seines, minnow traps, and gill nets appear to be less effective and/or cannot be used in as wide a range of microhabitats as fyke nets (unpublished data).

Electrofishing has been found to be the single most effective gear in some large river studies that compared relative catches (Simon and Sanders 1999, Reash 1999), but these studies failed to include small-meshed (≤ 5 mm) fyke nets in their comparisons and have not been used extensively in coastal wetland research. Studies that we (e.g. Brazner and Beals 1997) and others (Weaver et al. 1993) have been involved in demonstrated the efficacy of small-meshed fyke nets but without direct comparison to electrofishing.

A direct comparison between electrofishing and fyke-net catches should be completed so that sampling effort at a given location can be partitioned most efficiently to assure a high quality assessment of the fish assemblage occupying a particular habitat. We would like to compare the electrofishing methods proposed for the coastal wetland REMAP project (Simon 1998; Simon et al. 1999; Simon and Thoma 2000) with catches obtained in fyke net arrays similar to those we have used in previous efforts (Brazner et al. 1998). Comparison of the fish captured with day and night electrofishing in a 500 m transect within representative habitats for a particular wetland with those captured in fyke nets set along this same transect.

We plan to use four pairs of different sized fyke nets to make the comparison (Fig. 1). All nets will have 3 m wings attached to both sides of the front opening. Two pairs of 5 m long nets, one with 4 mm mesh and the other with 12 mm mesh (0.9 x 1.2 m front opening) will be set in a lead-to-lead (15 m connecting lead) orientation centrally along the length of the transect and parallel with the 0.75-1 m depth contour in predominant habitat types. The smaller-meshed nets typically catch a large number of immature fishes and the larger-meshed nets typically get mostly adults. Two pairs of smaller fyke nets (4 mm mesh, 0.45 m x 0.9 m front end opening) will be set in predominant inshore habitat types along the transect in a lead-to-lead orientation along the 0.3 to 0.4 m depth contour. These small nets function similar to seine hauls in that they sample very shallow water, but can be set in areas that cannot be sampled with seines, such as heavily vegetated areas or habitats with a lot of woody debris. In addition, these nets provide a more integrated sample over a prescribed number hours (typically 24-48 h) compared to “single-point-in-time” estimates obtained from seine hauls.

Samples using each method will be taken in mid-summer during the 24 h period that electrofishing will be conducted at each site. The fyke nets will be tended daily so that a comparison of a 24 hour catch could be made with the other two methods (day and night electrofishing). The most effective method or combination of methods will be determined using standard ANOVA techniques comparing number of species and fish caught using the various configurations.

B.1 **General sampling procedures** - Mean wetland width (MWW) is used to define the length of the station in riverine wetlands, the distance from the station to unusual features or disturbances (e.g., bridges, etc.) will be qualified, and for protected wetlands the maximum length and width will determine the number of 500 m zones that will need to be sampled.

If the water level appears to be substantially (> 0.15 m) above normal relative to present Great Lakes water level conditions, sampling should not occur (see Station Summary). This may only be necessary for open lake wetlands since riverine and protected wetland types will typically not vary much but be tied to Lake levels. Fish Habitat Evaluation, for determination of water levels) and will require a revisit of the site when appropriate conditions exist. Once the MWW for a station has been determined, this value is used for all future sampling, including future years when riparian land use or other factors may have changed the actual site width.

Sampling stations distances for riverine wetlands are **35 times** the MWW in length. The **minimum sampling distance for riverine wetlands is 150 m while the maximum length is 500 m**. This length is based on the distance necessary to capture most species present and is based on a desire to sample >3 habitat cycles. In **protected wetlands, the sample distance is 500 m and the number of zones will be based on the open wetted surface area** of the wetland.

Each station starts and ends at the prescribed distance from the X-point irrespective of placement. The X-point is the latitude and longitude supplied by the EMAP random stratified design. Thus, **stations can only be moved 26 m** to avoid the influence of a beaver dam, dry site condition, or an impoundment. Stations can be somewhat less than 35 times the MWW in length. EMAP instructions suggest that a minimum of 50% of the riverine wetland reach length must be sampled for a site to be considered valid. Stations should not contain permanent tributaries or hydraulic controls (e.g., dams, old bridges abutments). Habitat should be sampled each time fish are sampled. Sampling of fish is done in the same site reach that is sampled for habitat.

Fish community composition and species relative abundance are estimated over the entire length of each station using catch-per-unit of effort (CPUE) sampling procedures. Two pair of fyke nets are set in the minimum site length (150 m) while additional nets are included with increased riverine wetland size (Table 1). In protected wetlands, fyke nets are set at the farthest point from the place the boat is launched and is targeted along natural shorelines with the greatest habitat diversity that will correspond with electrofishing transects. For sampling during 2001, the nets are set within the determined site supplied by the EMAP latitude/longitude coordinates. All fish (> 25 mm in total length) observed are collected from the net after 24 h. At the end of the net set, minimum and maximum length and batch weight are measured for all species encountered. Number and aggregate weight of adults and young-of-the-year are recorded separately for all fish species. Fish specimens less than 25 mm TL should not be counted in either of the number of specimens but listed separately.

TABLE 1. Number of net sets necessary for sampling Great Lake coastal wetlands. Large nets with large mesh (LN/LM), large nets with small mesh (LN/SM), small nets with small mesh (SN/SM), and small nets with large mesh (SN/LM). Size is measured as wetted width (m) for riverine wetlands, largest surface area length (m) for protected wetlands, and acres (ac) for open

wetland types.

Wetland Type	Size	# of Sites	LN/LM	Number of Nets/Site		
				LN/SM	SN/SM	SNLM
Riverine	0.1-4.2 m	--	--	--	1	1
	4.2-8.6 m	--	1	1	1	1
	> 8.61 m	--	2	2	2	2
Protected	< 200 m	2	--	--	1	1
	200-1000	3	1	1	1	1
	1,000-10,000	4	2	2	2	2
Open	1-100 ac	2	--	--	1	1
	100-1000 ac	3	1	1	1	1
	1000-10,000 ac	4	2	2	2	2

For fish species that are > 25 mm TL, but are too difficult to identify accurately, place these specimens in the “B” or unknown jar for the site. Only fish that were batch weighed and counted are to be vouchered in the “A” jar. A total of 2-3 specimens of each species should be vouchered in the “A” jar for each site. Inspect all fish for deformities, eroded fins, lesions, and tumors (DELT).

Fish should be handled carefully to minimize mortality. After processing, fish are released alive into the station reach. For any species that cannot be identified with 100% certainty in the field, preserve the fish in the “B” jar and bring it back to the laboratory to be identified. See Table 2 for for species of fish and number of individuals that need to be preserved.

B.2. Fish Community Evaluation - Data sheets used in the Fish Community Evaluation include the **Station Summary** and **Catch Summary** data sheets. Both sheets apply to the whole station. There is a single **Station Summary** sheet per station and one or more of the catch summary sheets depending on the number and diversity of fish captured. Guidelines for filling out each sheet and examples of blank and completed sheets are provided on the following pages.

C. STATION SUMMARY DATA SHEET

This sheet summarizes the location, sampling characteristics, and gear used for the station. Some

of the data on this form are derived from maps or from other data sheets. The location information should be identical to that collected during the Habitat Evaluation (see chapter 2). The variables on this sheet follows:

C.1. LOCATION -----

1) Site name: The name of the wetland as shown on the most recent USGS 7.5" topographic map. The name used here should be identical to that used on the other data sheets and to that used for all other stations on the same wetland. Make sure that the spelling of the name is accurate and include all parts of the wetland name (e.g., West Branch, Middle Fork, River, Creek, Lake) to avoid confusion. Other commonly used names for the wetland can be written here in parentheses (Herdendorf et al. 1981).

2) Waterbody ID code (Wisconsin sites only) - a unique seven-digit number that identifies each wetland; all streams, rivers, and lakes in Wisconsin have an assigned number. These numbers are available from the WDNR Master Waterbody File. For wetlands in other states, substitute Herdendorf et al.'s (1981) wetland number. As with Site name, waterbody ID code should be the same for all stations on a stream.

3) Station number - The station number must correspond to the station number assigned for the site by EMAP.

4) Date - Fill in the date when the fish community data were collected for the station. To avoid confusion use the YYMMDD format (e.g. 000706 equals 6 July 2000).

5) Starting location - A precise verbal description of the point on the wetland where the fish sampling began (i.e., the downstream edge of the station). The description should include the exact distance and direction from the start to a "permanent" such as a bridge, building, or road marker. Avoid using landmarks that might be lost during future years (e.g., don't use tree or fence lines). Make the description as specific and precise as possible so that someone visiting the station for the first time can easily find the starting point. Installation of a permanent stake to mark the downstream end of the station is desirable if conditions permit. Be sure to confer with the landowner if the stake could interfere with the normal use of that area. **For example, West Branch Dunes Creek, 0.75 mi u/s SR 49 bridge, 2 mi N Chesterton, Nowhere Twp,**

6) Township, Range, Section, 1/16 Section, 1/4 Section - Legal description for the X-point of the station within the Public Lands System. These can be determined from recent USGS 7.5" topographic maps or a detailed county map. On a topographic map, a "land locator" template is useful for determining the 1/16 and 1/4 sections, indicate by a compass direction (NW, NE, SW, or SE). Note that for the Great Lakes all Townships are "N" (north), but Range can be either "E" or "W" (east or west). Make sure that the appropriate letter is included for both Township and Range.

7) 7.5" Quad Name - The name of the most recent USGS 7.5" topographic map on which the station is found.

9) County - The name of the county the station is located.

C.2. SAMPLING DESCRIPTION -----

1) Sampling type - The type of fish sampling done at a station. Check the appropriate category. Generally, during this project a single pass catch-per-unit-of-effort (CPUE) sampling is done. In special cases, other types of sampling such as "depletion" or "mark-recapture" may also be done at a station.

2) Station length - The length following the riverine wetland channel of the station. This length is based on 35 times the average stream width. For protected wetlands the number of stations should be recorded here since all stations are 500 m. Measure with a tape measure to the nearest 0.1 m.

3) Number of nets - The total number of nets used in a site during fish sampling. Normally, for "CPUE" sampling there will only be two net sets in riverine wetlands and for larger riverine wetlands and protected wetlands additional effort will be required.

4) Time - The time range during which the sampling was completed. "Start" refers to the time when the first fyke net is set, and "finish" refers to the time when the last fyke net is completed. Use military time to the nearest minute.

5) Type of pass -- A description of the direction of sampling through the station during the net sets. "Upstream only" refers to a pass that begins at the downstream end of the station, proceeds upstream, and then ends at the upstream end of the station. This is the type of pass used for "CPUE" riverine wetland sampling. "Parallel to shore" refers to a pass that begins at the downstream end of the station, proceeds upstream to the upstream end of the station, and then proceeds back downstream to the downstream end of the station. This is the type of pass used for protected and open wetlands and constitutes a single pass.

C.3. GEAR DESCRIPTION -----

1) Gear - A description of the number and type (mesh sizes) of fyke nets used in sampling. Specify the number of each type of gear that applies. Sampling will normally involve a pair of the large and small fyke nets for most wetland types or a pair of the smallest fyke nets for smaller riverine wetlands.

2) Number of nets per site - The number of fyke nets per site. Normally there is a minimum of two pair of the large and small frames set at each site.

COMMENTS/NOTES: Any and all information that appear relevant to the fish community

survey but is not recorded anywhere else on the data sheet should be noted. This information should include weather, water, habitat conditions (e.g., glare, wind, precipitation, water clarity, unusually deep or shallow areas) and gear performance (e.g., problems with generators or meters) that influenced sampling effectiveness. Any evidence of fish kills (i.e., dead fish in the water or on the bank) or angler use of the stream (e.g., hooks and lines caught in bushes; evidence of cleaned fish on the bank; footprints from waders) should also be noted. Don't hesitate to make comments, if in doubt – write it down!

D. CATCH SUMMARY DATA SHEET

This data sheet is for summarizing and recording the numbers and aggregate weights by species, of fish captured during each net set. The parameters on this sheet are as follows:

- 1) Site Name – Same as for **Station Summary** data sheet.
- 2) Station Number – Same as for **Station Summary** data sheet.
- 3) Date – Same as for **Station Summary** data sheet.
- 4) Net number – The net that this data sheet refers to is determined by the visit to the station.
- 5) Pass direction - Record the direction of the pass (either upstream or downstream) used to capture the fish recorded on this data sheet. For CPUE sampling, only upstream is used for riverine wetlands, while parallel to shore is used for protected and open wetlands.
- 6) Time - The starting and ending time of the actual net set for the collection event should be recorded. If the net set time is interrupted (e.g., due to storm event, vandalism, or due to equipment failure, etc.) the time of the interruption should be noted as the End time; the actual fyke net set was resumed and finally ended should be recorded in the parentheses. Elapsed time (in minutes) should be recorded after Total.

D.1 CATCH SUMMARY -----

This section of the data sheet is used to summarize the identity, total number, total weight, number of fish with deformities, eroded fins, lesions, and tumors (DELT), number of handling mortalities, the number of voucher specimens retained, and the number of marked or recaptured fish for each species captured. For species that are individually measured, transcribe these totals from the Individual Fish data sheet.

- 1) Species - The identity of each species captured during the pass. Only accepted American Fisheries Society common names should be used (see Robins et al. 1991; “Common and Scientific Names of Fishes from the United States and Canada. AFS Special Publication Number

20"). Use of abbreviations is prohibited. If a species cannot be identified with 100% certainty then preserve **all unknowns in the “B” jar** for later complete identifications; **do not count and weigh any individuals in the “B” jar**.

“A” jars contains vouchered specimens (Normally 2-3 individuals), while the “B” jar contain the unknowns. The “A” jar should be identified, batch weighed, and have minimum and maximum lengths recorded. The “B” jar does not require any data collection.

2) Species Code - The species code is provided in Table 1. These three digit codes must be entered into this field for data entry.

3) Number caught - The total number of individuals of each species captured during the pass.

4) Weight - The total wet weight (g) of all individuals of the same fish species captured during the pass. Weigh to the nearest 0.1 g or to the nearest 1% of total weight, whichever is larger. For example, for a species with an aggregate weight of about 8 g, weigh to the nearest 0.1 g; for a species with an aggregate weight of about 60 g, weigh to the nearest 1 g; for a species with an aggregate weight of about 250 g, weigh to the nearest 3 g; for a species with an aggregate weight of about 1450 g, weigh to the nearest 15 g; and so on. Weigh groups of fish in a calibrated net of plastic bag using an appropriately sized balance or scale (gross weight), and don't forget to subtract the weight of the net or bag (tare weight) to get the actual weight of the fish (FINAL weight).

NOTE

The Final Weight of each fish species is based on wet weight. Weigh to the nearest 0.1 or 1% of body weight, whichever is larger.

5) Number of DELT - The total number of fish of a species that have deformities, eroded fins or scales, lesions, or tumors (“DELT”). Only obvious deformities, eroded fins or scales, lesions, and tumors observed on live fish should be counted. Electroshocking (usually AC current only) sometimes causes wounds or burns; do not count these as DELT. Record each type of DELT

NOTE

Deformities (D), Eroded Fins (E), Lesions (L), and Tumors (T) need to be tallied separately. The magnitude of the DELT anomaly should be noted as light < 20% of body (L) or heavy > 20% of body (H), or if multiple types of DELT (M).

separately under the appropriate column. Indicate if light <20% of body (L) or heavy > 20% of body (H) or if multiple types of DELT (M).

6) Number of vouchers – The total number of individuals of a species that were retained as vouchers. All fish species that can be identified to species with certainty should be preserved in 10% formalin and put in the “A” jar. The total number preserved should be written into this data field (See Table 2 for a list of necessary instructions on preserving fish specimens). All jars should have a double label including an internal tag (fill out REMAP Fish Collection Tag Record) and then a strip of tape should be placed across the top of the jar with the REMAP site number.

NOTE

Double label all jars with an internal “wet” label printed on write-in-rain paper or index weight labels. Place a label tape across the top of the jar and label with the REMAP site number.

Specimens that are too large to preserve, but are documented with a photograph should show important characters. For example, to differentiate between a walleye and a sauger the spinous dorsal fin should be spread to show the mottling in the spinous dorsal fin for sauger and two distal pigment spots in walleye. Multiple specimens can be photographed simultaneously, however, each frame should have the site number included on a 3" x 5" card written with a Sharpie and placed visibly in the frame. Specimens that are photographed should be noted in the comments section of the form indicating the frame number and roll number (e.g., Joe Exl roll 1, frame 24 could be documented as JE 1-24).

Effort should be made to minimize handling mortality such as using a live well, coolers, or quickly sorting fish into wet containers. Keep hands wet or use wet surgical gloves to minimize disruption of mucous layer. Although every effort may be made to return all fish back to the site alive, some mortality is inevitable. Dead fish should be counted and either be preserved or

NOTE

Vouchers can be specimens or pictures of specimens. Note in the appropriate place how many specimens and in the picture ID field. On the Photo Record Form, note the location and a description of the location. Make sure a card is inserted into the picture frame that shows the REMAP site number.

disposed of by burying. **DO NOT PUT DEAD FISH INTO THE WETLAND.**

7) Laboratory check vouchers – When voucher specimens are preserved, verify the Number of Vouchers retained and record a check in the “number” column. If the number preserved (after a lab count) does not match the number vouchers, record the correct number under number vouchers. Verify the identification of vouchers and record a check in the “ID” column. If the field identification (under species) was incorrect, based on a lab examination, change species to the correct identification.

8) Minimum and maximum total length (TL) mm – The distance from the tip of the snout to the posterior tip of the longest caudal (tail) lobe of each individual fish. The caudal lobes should be pinched together slightly when measuring this distance. Measure to the nearest 0.001 m, using a meter stick or measuring board.

9) Picture identification – In this field should be noted the size of the fish photographed and the abbreviated frame reference for site vouchers that are recorded as pictures (e.g., JE1-24).

XI. REQUIRED RECORDS

Station Summary Form

- A. The Station Summary Form will be completed during the actual field sampling process. This information will be placed in the biological database.
- B. The Station Summary Form should be inserted into a file that was created for each site that includes on the outside of the file the EMAP site number, the site reconnaissance form, photocopy of the 7.5 minute U.S. Geological Survey topographic map (reduced to show perspective of the site), and a copy of the EMAP site location sheet used as a tracing of the X-point.

Catch Summary Form

- A. The completely filled out form should include the species name, number, minimum and maximum length, aggregated weight, and presence of DELT anomalies. Wisconsin species code information must be listed on the form for processing.
- B. The Photograph Record Form must be included for the groups of samples and identified using the appropriate labeling designation.

X. REFERENCES

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