

Introducing the NANFA Breeder's Award Program (BAP)

Objectives

1. To recognize outstanding achievement in the breeding and rearing of North American fishes by NANFA members.
2. To provide the opportunity for breeders to contribute to a library of information on native fishes. This library will be available to others with an interest in the natural history and captive husbandry of North American native fishes.

Awards

Certificates will be awarded annually at the NANFA convention to those members who have submitted enough forms to qualify for one of the awards listed below. Any members who do not attend the convention, but have earned an award, will receive them in the mail. Members of the Award Committee will not review their own reports.

Award	Points
Breeders Award	50 points
Advanced Breeders Award	200 points
Expert Breeders Award	400 points
Master Breeders Award	600 points

Specialty Awards can be earned by breeders who work extensively with one family or group of fishes. All points for fishes in one family must add up to the minimum point value listed below, and any other requirement must be met, such as earning points from more than one genus within the family. Following are the awards currently offered. Additional awards may be created if there is sufficient interest by breeders.

Award	Points	Requirements
Centrarchidae Award	600 points	2 genera
Cyprinidae Award	600 points	5 genera
Killifish/Topminnow Award	600 points	2 genera
Catfish Award	600 points	any species
Percidae Award	600 points	2 genera

Requirements for Earning Points

There are five ways to earn points for each fish species. The breeder can earn the full point value of a species in each

of the first four categories below, and twice the full point value of a species in the fifth. The final score will be the number of the first four categories fulfilled, multiplied by the point value of the species bred, plus twice the point value of the species if category five is fulfilled.

Following are the five categories in which the point value of each species can be earned, cumulatively:

Category	Points
1. Breeding fish caught from the wild during or just prior to the spawning season.	Regular Point Value
2. Breeding fish kept in captivity through one spawning season and then brought back into spawning condition.	Regular Point Value
3. Raising fry to at least 60 days old.	Regular Point Value
4. Successive spawnings (F2, F3, F4, etc.).	Regular Point Value for each generation
5. A Spawning Report of 400+ words describing the breeder's experience.	Twice the Point Value

To earn points in categories 1-4, the breeder must fill out a BAP Report Form with all required information and return it to the NANFA BAP Committee.

Example: If bluegill is a 10-point fish, the breeder can earn at least 60 points:

Accomplishment	Point Value	Total Points
Breed wild-conditioned bluegills	10	10
Breed bluegills that were kept in captivity through one spawning season	10	20
Raise captive-spawned bluegill fry (60 days)	10	30
Raise and breed captive-spawned bluegill fry	10	40
Submit 400+ word Spawning Report	20	60

Additional points can be earned as successive generations of bluegill are bred from the same captive stock.

Note: Since one of BAP's objectives is to share information about the reproductive biology and captive propagation of

native fishes, all participants are strongly encouraged to submit a Spawning Report. Shorter write-ups will be accepted, but 400 words are required to receive the additional points. Spawning Reports may be published in *American Currents* at the editor's discretion.

Fish Point List

The Fish Point List will be updated by the NANFA BAP Committee at least every decade or as needed. Fishes that are found to be particularly easy or difficult to breed may be assigned to new point categories. Existing scores will not be changed to reflect these reassignments, so point holders will not gain or lose points as a result of these changes. The original point values can be earned up to one year after a point value has been lowered by persons already working with a particular species. During the first few years of the program the point values will be updated yearly.

The species that will be considered as North American fishes, for the purposes of this program, are those that are listed as such on the Texas Natural History Collection (TNHC) website (<http://www.utexas.edu/depts/tnhc/www/fish/tnhc/na/naindex.html>). This official list may be amended at the discretion of the BAP Committee.

If a spawning report is received for a North American fish family that is not on the list, the BAP Committee will assign points within three months of receipt of the Report Form. That species/family will then be added to the point value list.

5 Point Fishes	Poeciliidae: gambusia, mollies, etc. Goodeidae: all livebearing species
10 Point Fishes	Darters: all <i>Etheostoma</i> that guard eggs Killifishes: all <i>Fundulus</i> ; <i>Jordanella floridae</i> (flagfish); <i>Cyprinodon variegatus</i> (sheeps-head minnow); <i>Lucania goodei</i> and <i>parva</i> ; <i>Leptolucania ommata</i> (pygmy killifish) Cyprinidae: minnows Cichlidae: cichlids Characidae: characins Elassomatidae: pygmy sunfishes Centrarchidae: all spp. except for <i>L. humilis</i>
15 Point Fishes	Darters: all <i>Etheostoma</i> that do not guard eggs Cyprinodontidae: all pupfishes except for <i>Cyprinodon variegatus</i> Profundulidae: Middle American killifishes Rivulidae: rivulines Goodeidae: all egg-laying species Gasterosteidae: sticklebacks Cottidae: sculpins Umbridae: mudminnows
20 Point Fishes	Sunfishes: <i>Lepomis humilis</i> (orangespotted sunfish) Ictaluridae: bullhead catfishes

Pimelodidae: long-whiskered catfishes
Percidae: all non-*Etheostoma* (*Ammocrypta*, *Crystallaria*, *Percina*, *Perca*, *Stizostedion*)
Atherinidae: silversides
Amblyopsidae: cavefishes
Aphredoderidae: pirate perch
Catostomidae: suckers
Eleotridae: sleepers
Embiotocidae: tule perch
Gobiidae: gobies
Hemiramphidae: Gulf halfbeak
Percopsidae: trout-perches
Salmonidae: trouts, salmon and whitefishes
Sciaenidae: freshwater drum
Synbranchidae: swamp eel
Syngnathidae: pipefishes and seahorses

25 Point Fishes

Amiidae: bowfin
Ariidae: sea catfishes
Belonidae: needlefishes
Esocidae: pikes
Hiodontidae: mooneyes
Lepisosteidae: gars
Lotidae: cuskfishes (burbot)
Moronidae: temperate basses
Mugilidae: mullets
Petromyzontidae: lampreys

Note on marine species: The TNHC list only covers fishes that are restricted to or enter fresh waters. Because there is limited information on the captive breeding of most marine species, we have not listed them here. We will, however, accept and encourage the submission of Report Forms and Spawning Reports on marine fishes native to North America. Point values will be assigned as reports are received.

Note on unrecorded species: Be the first in the program to spawn and document the event and you will likely get a higher point value for that species than will future reports. As an incentive for breeders to work with little-known species, the first spawning report submitted for any species that has not been previously reported to the NANFA BAP Committee will receive a point value one step higher than its listed point value. Once an initial report is submitted for a species, the BAP Committee will evaluate the report and determine whether the species is difficult to spawn or relatively easy, and assign the species an appropriate value for later reports. A list of species previously reported to the program will be maintained for breeders' reference.

Additional Rules

1. Using hormones to induce spawning is prohibited.
2. Anyone working with endangered/protected fishes will need documentation showing that they are allowed to be working with these species.

NANFA Breeders Award Program Report Form

NAME: _____

DATE: _____

ADDRESS: _____

PHONE: _____

E-MAIL: _____

BREEDING CATEGORY: _____

* Required for points.

Submit form and direct questions to Bob Muller, NANFA BAP Chairperson, 625 S. Altadena, Royal Oak, MI 48067, 248-398-0195, michiganfish@aol.com.

1. Scientific name:* _____ 2. Common name: _____
3. Wild caught?* Yes No
4. If wild caught:
 - a. Collection date: _____
 - b. Name of water body or drainage: _____
 - c. County: _____ d. State: _____ e. Country: _____
 - f. Additional location information (e.g., three miles north of Frogville): _____

 - g. Names of collectors: _____
5. Captive-raised?* Yes No
6. If captive-raised:
 - a. Have previous spawns been reported? Yes No
 - b. What generation is this spawning (1st, 2nd, 3rd, etc.)? _____
7. Length of fish at time of spawning:* Male: _____ Female: _____
8. Size of aquarium used for spawning:* _____
9. Date spawned: _____
10. Diet: * _____
11. Water temperature: _____ 12. Hours of light: _____ 13. pH: _____
14. Type of filtration: _____
15. Spawning medium: Plants Gravel Other: _____
16. Spawning group:
 - a. Number of fish: Male: _____ Female: _____
 - b. What other species were in the tank, if any? _____ Number: _____
_____ Number: _____
 - c. Why were other fish included? _____
17. Multiple spawns? Yes No
18. If multiple spawns:

- a. How many days apart? _____
- b. Length of spawning season: _____
19. How did you know the fish were ready to spawn? _____

20. Were the eggs gathered or left in the aquarium to hatch? * _____
21. Egg and hatching observations:
- a. Diameter of eggs: _____ b. Egg description (color, etc.): _____
- c. How long did the eggs take to hatch? _____ d. Temperature: * _____
22. What additives were used to protect the eggs, if any? * _____
23. Comments on egg development: _____

24. Color of fry: _____ 25. Size of fry: _____
26. Description of fry: _____
27. Development of fry:
- a. Rate of growth: * _____
- b. Color changes: * _____
- c. How long until free swimming? _____
- d. How long until feeding was observed? _____
- e. How did fry behavior change over time? _____
28. Fry foods used: * _____
29. If spawners were captive raised or kept in captivity through one spawning season and brought back into spawning condition, describe wintering conditions (temperature, hours of light, feeding, etc.) *

30. If this was a spawning of captive-spawned fish (f2, f3, etc.), how long from hatching to breeding size?

31. How would you rate the difficulty of spawning and raising this species for future spawns?
5 points 10 points 15 points 20 points 25 points
30 points 35 points
32. Please record any additional comments on this species' spawning and rearing.

33. A write-up of not less than 400 words describing your experience will earn additional points worth twice the point value of the species. Our goal is to share information about the reproductive biology and captive propagation of native fishes. All participants are strongly encouraged to submit a write-up. Shorter write-ups will be accepted, but 400 words are required to receive the additional points.