Introducing the NANFA Breeders 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.

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.

<table>
<thead>
<tr>
<th>Award</th>
<th>Points</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breeders Award</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Advanced Breeders Award</td>
<td>200</td>
<td>2 genera</td>
</tr>
<tr>
<td>Expert Breeders Award</td>
<td>400</td>
<td>5 genera</td>
</tr>
<tr>
<td>Master Breeders Award</td>
<td>600</td>
<td>2 genera</td>
</tr>
</tbody>
</table>

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:

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

<table>
<thead>
<tr>
<th>Accomplishment</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breed wild-conditioned bluegills</td>
<td>10</td>
</tr>
<tr>
<td>Breed bluegills that were kept in captivity through one spawning season</td>
<td>10</td>
</tr>
<tr>
<td>Raise captive-spawned bluegill fry (60 days)</td>
<td>10</td>
</tr>
<tr>
<td>Raise and breed captive-spawned bluegill fry</td>
<td>10</td>
</tr>
<tr>
<td>Submit 400+ word Spawning Report</td>
<td>20</td>
</tr>
</tbody>
</table>

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 bluegills, additional points can be earned by submitting a Spawning Report of 400+ words describing the breeder’s experience. These points can be added to the final score, as described above.
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 *Etheostoma* that guard eggs
- Killifishes: all *Fundulus; Jordanella floridana* (flagfish); *Cyprinodon variegatus* (sheepshead minnow); *Lucania goodei* and *parva*; *Leptolucania ommata* (pygmy killifish)
- Cyprinidae: minnows
- Cichilidae: cichlids
- Characidae: characins
- Ellasomatidae: pygmy sunfishes
- Centrarchidae: all spp. except for *L. humilis*

### 15 Point Fishes
- Darters: all *Etheostoma* that do not guard eggs
- Cyprinodontidae: all pupfishes except for *Cyprinodon variegatus*
- Profundulidae: Middle American killifishes
- Rivulidae: rivulines
- Goodeidae: all egglaying species
- Gasterosteidae: sticklebacks
- Cottidae: sculpins
- Umbriidae: mudminnows

### 20 Point Fishes
- Sunfishes: *Lepomis humilis* (orangespotted sunfish)
- Ictaluridae: bullhead catfishes

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.

### 25 Point Fishes
- Amiidae: bowfin
- Ariidae: sea catfishes
- Belonidae: needlefishes
- Esocidae: pikes
- Hiodontidae: mooneyes
- Lepisosteidae: gars
- Lotoideae: cuskfishes (burbot)
- Moronidae: temperate basses
- Mugilidae: mullets
- Petromyzontidae: lampreys

### 30 Point Fishes
- Percidae: trout-perches
- Salmonidae: trouts, salmons and whitefishes
- Sciaenidae: freshwater drum
- Synbranchidae: swamp eel
- Syngnathidae: pipefishes and seahorses

**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: * _______________________________________________________________________
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: ______________________________________________


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.