

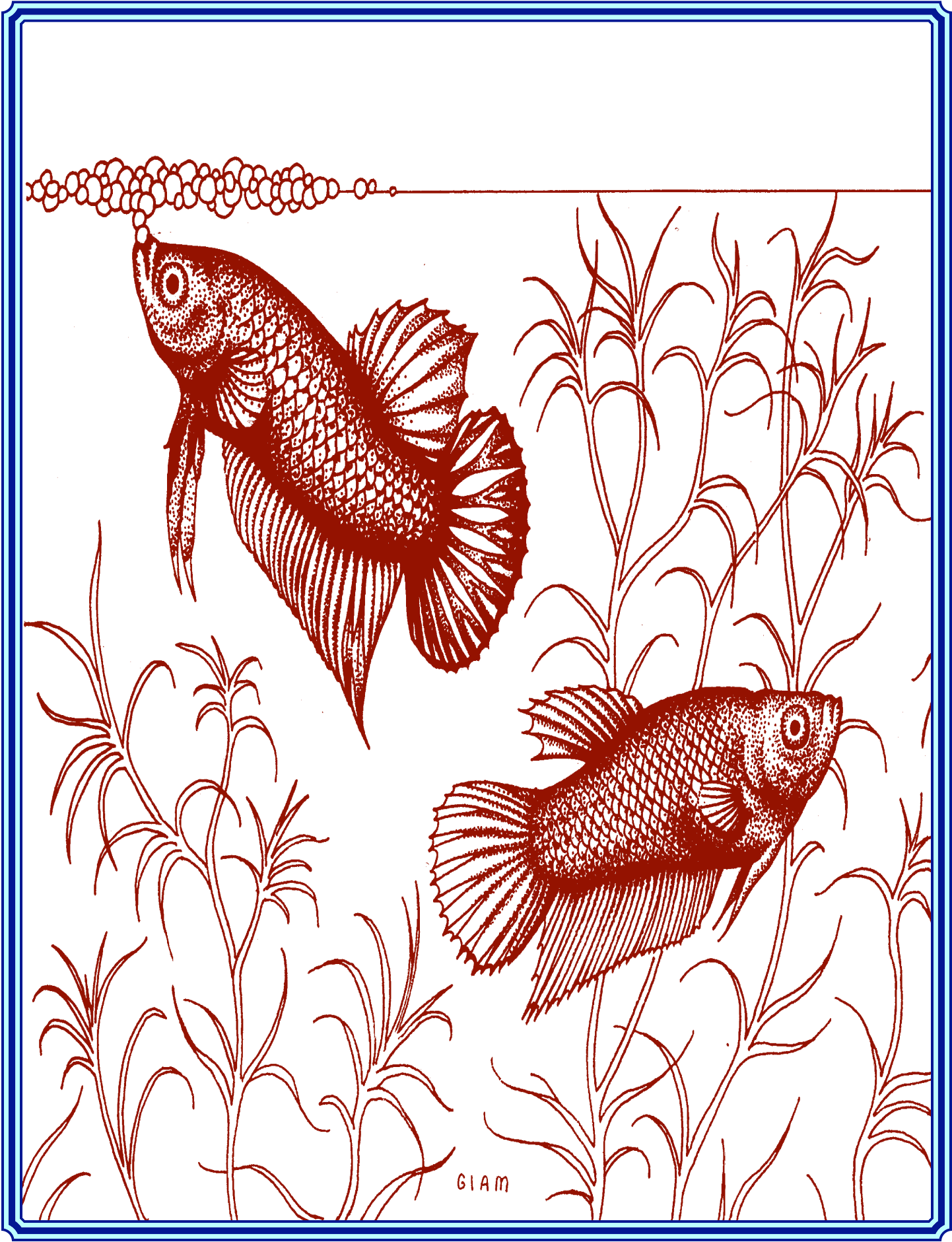
Educating Aquarists  
Since 1911



# **BREEDER & HORTICULTURAL AWARDS PROGRAM MANUAL**

(Revised 2009)





GIAM

Educating Aquarists  
Since 1911



**Brooklyn Aquarium Society, Inc.**  
P.O. Box 290610  
Brooklyn, New York 11229-0011  
BAS 24 hour Information Hot-line  
**1-718-837-4455**  
Online  
**BROOKLYNAQUARIUMSOCIETY.ORG**



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*(Make copies of form as you need to register your spawns and propagations with the BAP/HAP)*



# FAMILY OF FISH WORLD LOCATION MAP



## Key To Fish Distribution

- A ANABANTOIDS
- B BRACKISH WATER
- C CATFISH
- D CHARACINS
- E CICHLIDS ~ NEW WORLD
- F CICHLIDS ~ OLD WORLD
- G CYPRINIDS

- H RAINBOWS
- I KILLIFISH
- J LIVEBEARERS
- K NATIVE AMERICAN
- L MARINE FISH
- M INVERTEBRATES & CORALS




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# Welcome to the Breeder's Award Program of the Brooklyn Aquarium Society

**T**hrough the BAP, we measure our advancement as aquarists as we gain the necessary knowledge and skill to allow the species we keep to reproduce.

Our purposes are to encourage more participation among the members of our club, to recognize outstanding achievements, and to share knowledge of breeding techniques.

This is a noncompetitive program which recognizes all members equally according to their ability and willingness to experiment, without regard to the size of setup or any time limits. All points earned are cumulative over an indefinite period of time. 

## **POINTS & AWARDS**

Every time you spawn a fish, you earn points according to our point classification list. As you accumulate points you earn:

<u><b>Title</b></u>	<u><b>Amount of Points</b></u>
<b>Hobbyist</b>	25 points
<b>Breeder</b> At least 20 points must be from the 10, 15 or 20 point category.	50 points
<b>Advanced Breeder</b> At least 40 points must be from the 15, or 20 point category.	100 points
<b>Master Breeder</b> At least 30 points must be from each of the 5, 10, 15 point categories, 40 points must be from a 20 point category. The remaining points could be obtained from any category.	300 points
<b>Grand Master Breeder</b>	500 points
<b>Advanced Grand Master Breeder</b> 60 points must be from 5, 10, 15 point category and 80 points must be from a 20 point category.	750 points
<b>Senior Grand Master Breeder</b> 80 points must be from 5, 10, 15 point category and 100 points must be from 20 point category.	1,000 points
<b>Premier Breeder</b>	1,500 points
<b>Senior Premier Breeder</b>	2,000 points
<b>Grand Poobah Yoda Breeder</b>	4,000 points



## **ADDITIONAL POINTS ARE GIVEN**

- If a breeder elects to write an original article on his spawn or plant propagation, with references, an additional 5 points will be awarded.
- 1st Time Spawn for a fish species (for B.A.S.) will receive an additional 5 points in addition to the normal point value, for any species. If a fish has been reclassified under a different scientific name, it will not count as a new species or as a 1st time spawn, unless it has not been bred under its former name. An additional 10 points will be given with an original article (with references) of 300 words or more, about the spawn. The time frame for this article will be three (3) months from the date of the spawn.

## **AWARDS**

<b>25 – 100 points</b>	[Hobbyist, Breeder, Advanced Breeder] – certificates
<b>300 points</b>	[Master Breeder] – 5 X 7 plaque or equivalent
<b>500 points</b>	[Grand Master Breeder] – 8 X 10 plaque or equivalent
<b>750 points</b>	[Advanced Grand Master Breeder] – decorative 8 X 10 plaque or equivalent
<b>1,000 points</b>	[Senior Grand Master Breeder] – large plaque/ trophy or equivalent
<b>1,500 points</b>	[Premier Breeder] – larger trophy or equivalent
<b>2,000 points</b>	[Senior Premier Breeder] – largest trophy or equivalent
<b>4,000 points</b>	[Grand Poobah Yoda Breeder] – huge trophy

## **SPECIALTY SPECIES PROGRAM & MAINTAINING SPECIES PROGRAM**

- |   |  |
|---|--|
| • Anabantoids                           | 6 species  |
| • Brackish Water                        | 3 species  |
| • Catfish                               | 5 species (1 species must be from other than Corydoras, Asidorus, Brochis) |
| • Characins                             | 6 species  |
| • Cichlids - New World (American)       | 12 species   |
| • Cichlids - Old World (African/ Asian) | 12 species (no more than 5 mouth brooders)                                 |
| • Cyprinids                             | 10 species   |
| • Killifish                             | 7 species (at least 2 species must be annuals)                             |
| • Livebearers                           | 8 species  |
| • Marine fish                           | 3 species (only true marine varieties)                                     |
| • Marine invertebrates & corals         | 7 species (2 species other than snails)                                    |



# **SPECIALTY PROGRAM AWARDS**

**Specialty Species Award** - Certificates for single species group

**Senior Specialist Award** – plaque or equivalent for achieving 4 different species groups \*

**Expert Specialist Award** – plaque or equivalent for achieving 7 different species groups\*

\* With the exception of invertebrates for Senior and Expert Specialist Award

## **HORTICULTURAL AWARD PROGRAM**

**Plants reproduced must conform with the following definition of an aquatic plant:**

• An aquatic plant is one which, in the wild or natural state, can be found in the submerged form, or floating, as a normal occurrence at some time during the course of any one complete season. The objectives of the Horticultural Award Program are:

- To recognize outstanding achievement in growing and propagating aquatic plants.
- To gather knowledge and information about aquatic plants and their environment.
- To identify new plants.

When a plant reproduces, you earn points according to our point classification list.

As you accumulate points, you earn:

<b><u>Title</u></b>	<b><u>Amount of Points</u></b>
<b>Beginner Aquatic Horticulturist</b>	<b>25 points</b>
<b>Aquatic Horticulturist</b> At least 20 points must be from the 10, 15 or 20 point category	<b>50 points</b>
<b>Senior Aquatic Horticulturist</b> At least 40 points must be from the 15 or 20 point category	<b>100 points</b>
<b>Expert Aquatic Horticulturist</b> At least 30 points must be from each of the 5, 10, 15 point categories; a minimum of 40 points must be from a 20 point category. The remaining points can be from any category.	<b>300 points</b>
<b>Master Aquatic Horticulturist</b>	<b>500 points</b>
<b>Grand Master Aquatic Horticulturist</b> 60 points must be from 5, 10, 15 point category and 80 points must be from a 20 point category.	<b>750 points</b>
<b>Senior Grand Master Aquatic Horticulturist</b> 80 points must be from 5, 10, 15 point category and 100 points must be from 20 point category.	<b>1,000 points</b>
<b>Premier Aquatic Horticulturist</b>	<b>1,500 points</b>
<b>Senior Premier Aquatic Horticulturist</b>	<b>2,000 points</b>

## **ADDITIONAL POINTS ARE GIVEN**

- If a breeder elects to write an original article on his plant propagation, with references, an additional 5 points will be awarded. The time frame for this article will be three (3) months from the date of the spawn.
- Extra points will be awarded for plants that flower, equal to the point value of plant.
- Extra points will be awarded for plants reproduced sexually, equal to the point value to which the plant belongs.

## **AWARDS**

<b>25 – 100 points</b>	[Beginner, Aquatic and Senior Aquatic Horticulturist] – certificates
<b>300 points</b>	[Expert Aquatic Horticulturist] – 5 X 7 plaque or equivalent
<b>500 points</b>	[Master Aquatic Horticulturist] – 8 X 10 plaque or equivalent
<b>750 points</b>	[Grand Master Aquatic Horticulturist] – decorative 8 X 10 plaque or equivalent
<b>1,000 points</b>	[Senior Grand Master Aquatic Horticulturist]– plaque or trophy or equivalent
<b>1,500 points</b>	[Premier Aquatic Horticulturist] - larger plaque/ trophy or equivalent
<b>2,000 points</b>	[Senior Premier Aquatic Horticulturist] – unique plaque/ trophy or equivalent

## **CORAL AWARD PROGRAM**

**Corals propagated/reproduced must conform with the following definition of a marine coral:**

- A hard coral is the hard skeleton secreted by certain tiny sea animals, such skeletons collectively forming reefs, islands, etc. A soft coral is the spreading by propagation of live, simple celled, marine animals that share the same habitat, forming colonies or groups of soft coral, in the oceans of the world.

**The objectives of the Coral Award Program are:**

- To recognize outstanding achievement in growing and propagating corals.
- To gather knowledge and information about both hard and soft corals and their environment.
- To identify new corals.

Every time your coral reproduces, you earn points according to our point classification list. As you accumulate points, you earn:

<b><u>Title</u></b>	<b><u>Amount of Points</u></b>
<b>Beginner Coral Propagator</b>	<b>25 points</b>
<b>Coral Propagator</b>	<b>50 points</b>
<b>Senior Coral Propagator</b>	<b>100 points</b>
<b>Expert Coral Propagator</b>	<b>300 points</b>
<b>Master Coral Propagator</b>	<b>500 points</b>
<b>Grand Master Coral Propagator</b>	<b>750 points</b>
<b>Senior Grand Master Coral Propagator</b>	<b>1000 points</b>

## **ADDITIONAL POINTS ARE GIVEN**

- If a breeder elects to write an original article on his coral propagation, with references, an additional 5 points will be awarded. The time frame for this article will be three (3) months from the date of the propagation.

## **AWARDS**

- 25 – 100 points** [Beginner, Coral Propagator and Senior Coral Propagator] – certificates
- 300 points** [Expert Coral Propagator] – 5 X 7 plaque or equivalent
- 500 points** [Master Coral Propagator] – 8 X 10 plaque or equivalent
- 750 points** [Grand Master Coral Propagator] – decorative 8 X 10 plaque or equivalent
- 1,000 points** [Senior Grand Master Coral Propagator] – large plaque or trophy or equivalent

## **BREEDER OF THE YEAR AWARD**

- An annual award that is presented to the hobbyist who has bred the most fish, plants and/or coral propagation and, in the view of the BAP committee, has demonstrated a devotion to the expanding of the species through generosity, patience and support of the club. Examples are donating fry to other members, help and support to other breeders and support to the BAS. The BAP chairperson reserves the right not to present this award if it is believed that no one person has shown the qualities and characteristics that set them apart from other hobbyists.



## **CLAIMING POINTS**

- When you have spawned your fish, they must be “witnessed”; that is, a member of the Breeder Award Program will come to your home to inspect the fry and parents and verify the species within 7 days of the time they become free swimming. A committee member will revisit to verify the fry are alive 60 days after free swimming or fry may be brought to a club meeting after 60 days.
- A minimum of six (6) fry will be considered a spawn, if maintained for 60 days. Special consideration will be given to fish that are less prolific and to Junior members, upon request of the breeder to the committee, to waive the six (6) fish minimum.
- Marine fish will be 20 point fish if the fry are free swimming for 30 days.
- Corals and plants – a committee member must be notified immediately and the committee member must inspect the “cutting” within 7 days. The “cutting” must be re-visited to determine reasonable growth within 60 days of original viewing. Floating plants; by doubling the amount; bunch plants, by doubling the number of rooted growing stems; runner or divided plants must have one healthy plant capable of living independently. Sexual reproduction: the flowerings must be identified in full bloom attached to the parent plant. For seeded plants, there must be a healthy seedling sufficiently developed to be identified as the offspring of the parent plant.
- Plants must have a viable offspring or grow offshoots that develop root systems. Acceptable methods are by cuttings, offshoots, runners, or plantlets that develop their own root systems and can survive on their own, flowering or seed production, and by flower pollination from the members own plant.
- All requirements must be completed within 4 months after a BAP committee person witnessed breeding. If not completed, the spawn is not eligible for the BAP.
- You must be a member in good standing with BAS.
- Points may be obtained **only once per species** of fish/coral invertebrate/plant. If a fish has been reclassified under a different scientific name, it will **not count** as a new species. Color variations do not count as a separate species. Different Latin name counts as a different species. Examples are Discus [*Symphysodon aequifasciatus* “Pigeon Blood” and *Symphysodon aequifasciatus* “Gold Dragon” only one counts. *Corydoras metae* and *Corydoras melini* are different species (different last names), thus both count.
- Points may be awarded to families or couples and to individuals, but **not** to both.
- It is the breeder’s responsibility to complete all necessary forms, verify that the forms are submitted, the proper points are recorded and that the spawns are verified.
- Partnerships on points or family membership in Breeders Award Program: the points will **only** be awarded to the family group or to one (1) member.

## **ASSIGNING & CHALLENGING POINTS**

- Species not listed that an aquarist is planning to spawn should be brought to the Chairperson's attention. The Chairperson will present the specifics to the committee for discussion. The committee, by majority vote, will assign points.
- It is recognized that new discoveries, new importations of fish, published documents, etc. can all change the value of breeding a specific species. Points may therefore be reviewed and changed periodically by the committee, by majority vote, and the findings and changes will be publicized in the club journal "*Aquatica*."
- If the number of points is changed on a species, this point value will go into effect immediately. When points are reclassified, the points shall not be applied to previously earned points.
- Breeder Award Program year will start in September and end at July Board meeting. Spawns for July and August will be recognized in September.
- If a member has a lapse in membership, the former club member's points will be reinstated depending on the availability of records. During the period of time the person was not a member, those spawns will **not** count for points; points will start again upon the person becoming a member in good standing.
- The BAP committee has the right to extend any time and/or date limits.

### **THE ASSIGNING OF POINTS RATIONALE IS AS FOLLOWS:**

- 1) Fish, coral invertebrate, plant type
- 2) Water chemistry, lighting, temperature
- 3) Feeding requirements
- 4) Difficulty in spawning
- 5) Difficulty in raising fry

**5 points** - species that can basically breed over a wide range of conditions, all by themselves. Examples: guppy and platy.

**10 points** - species that can be bred easily, given specific conditions, which are not too exacting. Examples: barbs which breed easily when conditioned properly, zebras when conditioned and given low water level and a marble bottomed tank or African mbuna which breed easily given alkaline water, good food and some measure of protection against aggression.

**15 points** - those species which may present moderate problems in one or more of the following areas: aggressive behavior, water chemistry, specific diet requirements, mate selection or sexing, poor physical stamina or disease resistance, special tank setup requirements, special care for fry. Example: Angelfish- may present a sexing problem, have an aggressive nature, and can present a problem providing proper brood care.

**20 points** - those fish that have not been bred, bred only very rarely, or are very difficult to breed based on the severity of the problems mentioned above. Examples: Black Ghost fish, Neons, and all marine species.

## **BREEDERS AWARD COMMITTEE**

- The Breeders Award Committee will consist of a chairperson and an even number of other members. The chairperson and the members shall be approved and appointed by the Board of Directors.
- The duties of the committee shall be to witness spawning and cuttings, keep official records and point totals, report to the Board when necessary, publicize the activities of the committee and those persons spawning fish in the club journal, order certificates and awards as needed, and make the necessary presentations at meetings.
- As soon as your fish spawn, plant or coral reproduce call/email:  
Committee Chairperson **Joe Graffagnino** (718) 238-1792  
[IOEGRAFFAGNINO@YAHOO.COM](mailto:IOEGRAFFAGNINO@YAHOO.COM)

Other members are:

**Vincent Babino** for Freshwater fish

Home (718) 982-5978, Cell (646) 721-1864

**Izzy Zwerin** for Plants

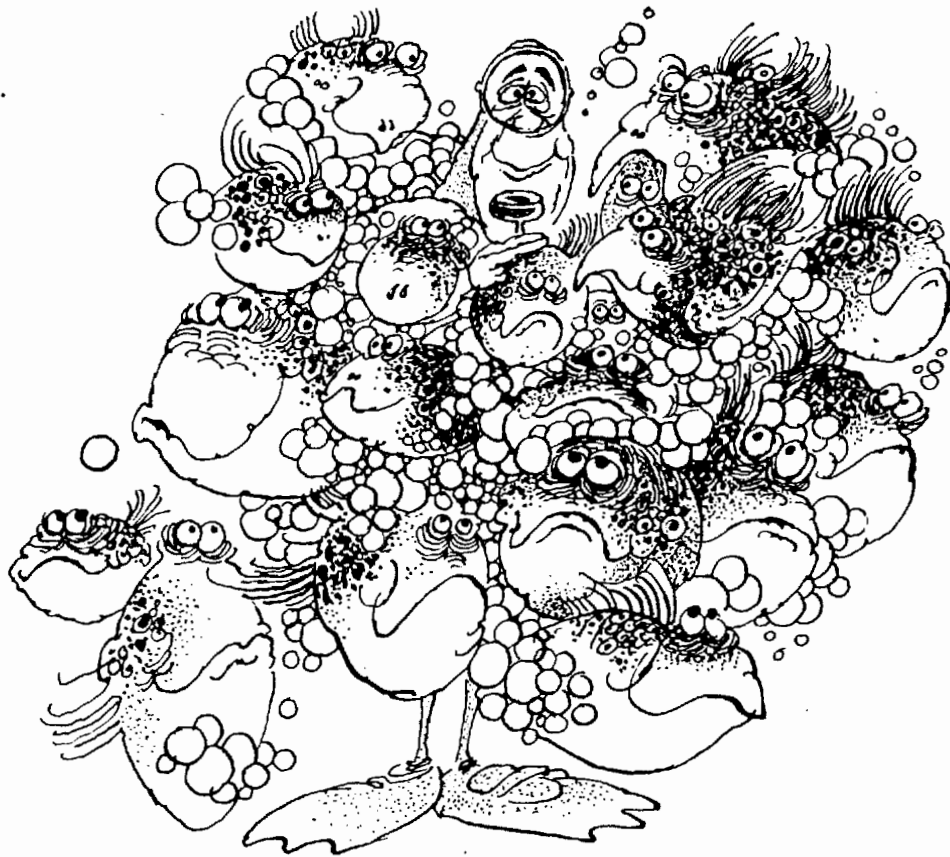
Home (718) 449-0031, Cell (646) 269-5926

**Steve Matassa** for Marine fish and corals

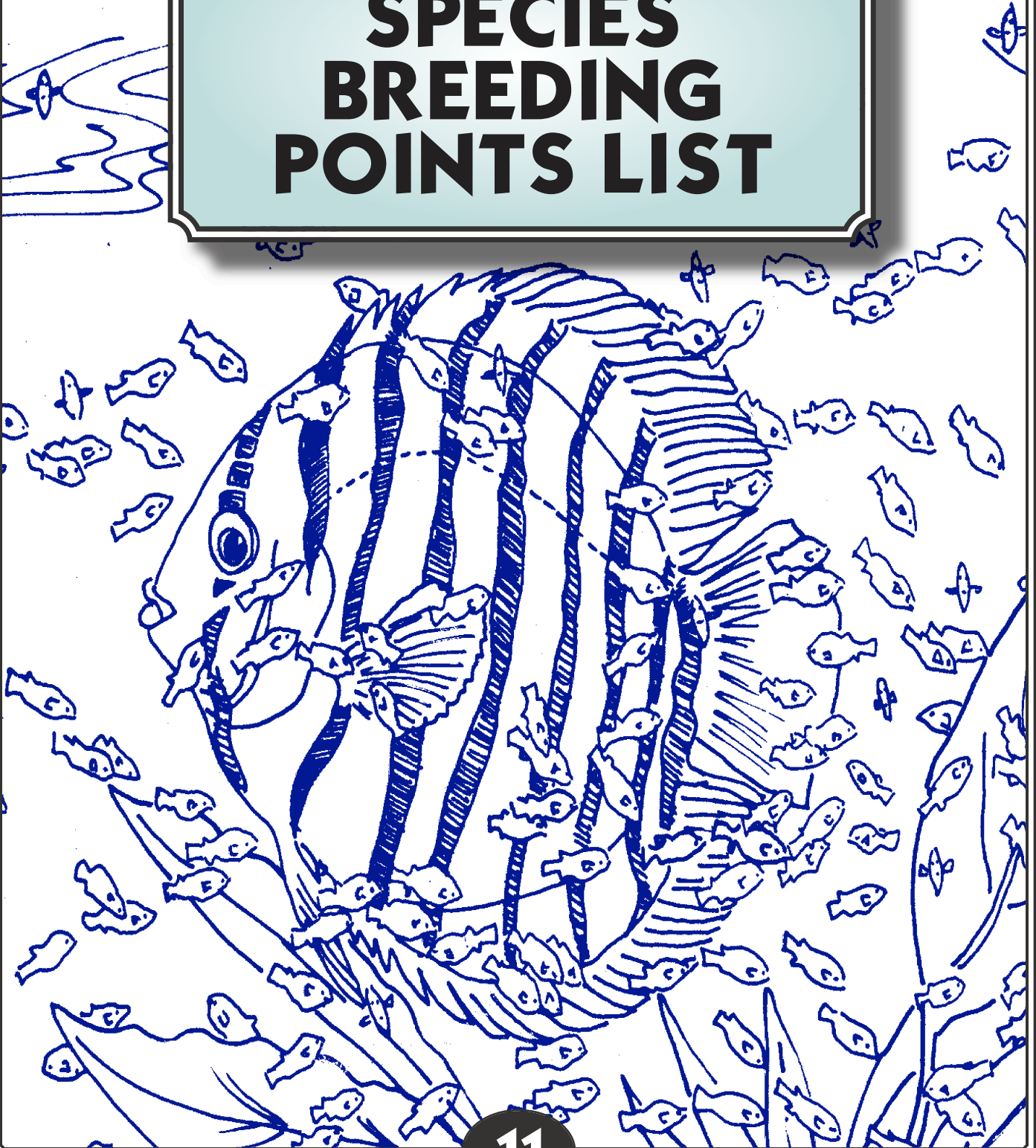
Home (718) 513-6636, Cell (347) 277-4793

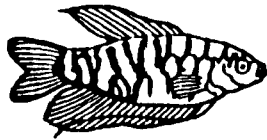
**Bernard Deren** for Marine fish and corals

Home (718) 266-5757, Cell (917) 592-2196



# FISH SPECIES BREEDING POINTS LIST





# Anabantoids



POINTS COMMON NAME

LATIN NAME

5	None
10	Betta, Siamese, Fighting Fish
10	Paradise fish
15	Combtail
15	Betta Splendor (bubblenesters)
15	Betta Breder's (bubblenesters)
15	Betta Crescent (bubblenesters)
15	Gourami [all types except when noted]
20	<i>Betta coccina</i> (bubblenester)
20	<i>Betta fasciata</i> (bubblenester)
20	<i>Betta smaragdina</i> (bubblenester)
20	<i>Betta brederi</i> (mouthbrooder)
20	<i>Betta macrostoma</i> (mouthbrooder)
20	<i>Betta picta</i> (mouthbrooder)
20	<i>Betta pugnax</i> (mouhbrooder)
20	<i>Betta taeniata</i> (mouthbrooder)
20	<i>Betta unimaculata</i> (mouthbrooder)
20	All <i>Ctenopomas</i>
20	Gorami Gorami
20	Chocolate Gorami

<i>Betta splendens</i>
<i>Macropodus opercularis</i>
<i>Belontai hasselti</i> & <i>signata</i>
<i>Betta bellica</i>
<i>Betta brederi</i>
<i>Betta imbellis</i>
<i>Colisa</i> , <i>Ctenops</i> , <i>Helostoma</i> , <i>Malpulutta</i> , <i>Trichogaster</i> sp.
<i>Betta coccina</i>
<i>Betta fasciata</i>
<i>Betta smaragdina</i>
<i>Betta brederi</i>
<i>Betta macrostoma</i>
<i>Betta picta</i>
<i>Betta pugnax</i>
<i>Betta taeniata</i>
<i>Betta unimaculata</i>
<i>Ctenopomas</i> sp.
<i>Osphronemus</i>
<i>Sphaerichthys</i>



# Brackish Water



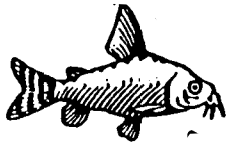
POINTS COMMON NAME

LATIN NAME

5	None
10	None
15	None
20	All species, this includes Freshwater sole Mudskippers  Philippine bumblebee Doria bumblebee Bumblebee goobi Bronze puffer Mono Fingerfish Southern blue eye Scat False scat Malayan puffer Archer fish

<i>Achirus errans</i>
<i>Boleophthalmus parapocryptes</i> , <i>periophthalmus</i>
<i>Brachygobius aggregatus</i>
<i>Brachygobius doriae</i>
<i>Brachygobius xanthozona</i>
<i>Chonerhinus naritus</i>
<i>Monodactylus argenteus</i>
<i>Monodactylus sebae</i>
<i>Pseudomugil signifer</i>
<i>Scatophagus argus</i>
<i>Selenotoca multifasciata</i>
<i>Tetraodon cutcutia</i>
<i>Toxotes jaculator</i>





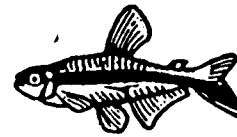
# Catfish & Loaches



<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
5	None	
10	None	
15	Corys	<i>Corydoras</i>
20	All other catfish, including algae eaters, shark types and loach species	



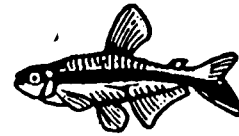
# Characins



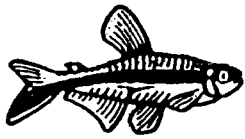
<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
5	None	
10	Bloodfin Tetra	<i>Aphyocharax anisitsi, axelrodi,</i>
10	Calyso Tetra	<i>Aphyocharax rubropinnis</i>
10	Silver Tetra	<i>Ctenobrycon spilurus</i>
10	Black Tetra	<i>Gymnocorymbus ternetzi, thayeri</i>
10	Buenos Aires Tetra	<i>Hemigrammus caudovittatus</i>
10	Head and Tail Light	<i>Hemigrammus ocellifer</i>
10	Yellow Tetra	<i>Hyphessobrycon bifasciatus</i>
10	Flame/ Red/ Tetra From Rio	<i>Hyphessobrycon flammeus</i>
10	Blackline Tetra	<i>Hyphessobrycon scholzei</i>
10	Calypso Tetra/ Red Pristella	<i>Megalampodus axelrodi</i>
10	Yellow Banded Moenkhausia	<i>Moenkhausia sanctae-filomenae</i>
10	Three lines African Tetra	<i>Nannaethiops tritaeniatus</i>
10	African Tetra	<i>Nannaethiops unitaeniatus</i>
10	Pristella/ Albino Pristella	<i>Pristella riddlei</i>
15	Blind Cave Characin	<i>Astyanax fasciatus mexicanus</i>
15	Mexican Tetra	<i>Astyanax mexicanus bloodfin</i>
15	Yellow Tailed African Characin	<i>Alestopetersius caudalus</i>
15	Golden Crowned Aphyocharax	<i>Aphyocharax alburnus</i>
15	False Bloodfin	<i>Aphyocharax dentatus</i>
15	Flame tail Tetra	<i>Aphyocharax erthrurus</i>
15	2 Spotted Astyanax	<i>Astyanax bimaculatus, mutator</i>
15	Hatchetfish	<i>Carnegiella, Gasteropelecus</i>
15	Splashing Tetra/ Jumping Characin	<i>Copella arnoldi</i>
15	Spotted Copella	<i>Copella nattereri</i>
15	Red-Spotted Copella	<i>Copella guttata</i>



# Characins



<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
15	Swordtail Characin	<i>Corynopoma rилsei</i>
15	Gold Tetra	<i>Hemigrammus armstrongi</i>
15	Cerulean Tetra	<i>Hemigrammus coeruleus</i>
15	Glowlight Tetra	<i>Hemigrammus erythryzonus or gracillis</i>
15	Silver-tipped Tetra	<i>Hemigrammus nanus</i>
15	Feather Fin Tetra	<i>Hemigrammus unilneatus</i>
15	Vorder Winkler's Tetra	<i>Hemigrammus vorderwinkleri</i>
15	White Tip/Bentos Tetra	<i>Hyphessobrycon bentosi</i>
15	Jewel Tetra	<i>Hyphessobrycon callistus</i>
15	Columbian Tetra	<i>Hyphessobrycon columbianus</i>
15	Red Minor Tetra	<i>Hyphessobrycon minor</i>
15	Rosy Tetra	<i>Hyphessobrycon rosaceus</i>
15	Griem's Tetra	<i>Hyphessobrycon rosaceus grimei</i>
15	Bleeding Heart Tetra	<i>Hyphessobrycon rosaceus rubrostigma</i>
15	Red Serpae	<i>Hyphessobrycon serpae</i>
15	Coffee Bean Tetra	<i>Hyphessobrycon takasei</i>
15	Adonis	<i>Lepidarchus adonis</i>
15	Black Phantom Tetra	<i>Megalamphodus megalopterus</i>
15	Swegle's Tetra	<i>Megalamphodus sweglesi</i>
15	Croaking Tetra	<i>Mimagoniates inequalis</i>
15	Blue Tetra	<i>Mimagoniates microlepis</i>
15	Pencilfish	<i>Nannostomus anomalus, aripirangensis, eques, espei</i>
15	Rainbow Tetra	<i>Nematobrycon amphioxus</i>
15	Emperor Tetra	<i>Nematobrycon palmeri</i>
15	Ansorge's Neolbias	<i>Neolebias ansorgei</i>
15	Blue-banded Neolbias	<i>Neolebias landgrafi</i>
15	False Rummy-Nose	<i>Pitetella georgiae</i>
15	Banded Pyrrhulina	<i>Pyrrhulina rachoviana</i>
15	Rachow's Pyrrhulina	<i>Pyrrhulina vittata</i>
15	Guatemalan Headstander	<i>Roeboides guatmalensis</i>
15	Penguin	<i>Thayeria obliqua, boehlki,</i>
20	Headstanders	<i>Abramites Anostomus, Chilodus</i>
20	Piranhas	<i>Catoprion Pygocentrus, Serrasalmo</i>
20	Chaper's Characin,	<i>Alestes chaperi</i>
20	Long-finned African	<i>Alestes longipinnis</i>
20	Nurse Tetra	<i>Alestes nurse</i>
20	African Tetra	<i>Alestes taeniurus</i>
20	Pink-tailed Chalceus	<i>Chalceus macrolepidotus</i>
20	Cardinal Tetra	<i>Cheirodon axelrodi</i>
20	Three-spot Tetra	<i>Cheirodon kriegi</i>
20	All Collossoma	<i>Collossoma species</i>



# Characins



## POINTS COMMON NAME

## LATIN NAME

20	Elgenmann's Copeina	<i>Copeina eigenmanni</i>
20	Sailfin Tetra	<i>Cretochanes spilurus</i>
20	Exodon Tetra	<i>Exodon paradoxus</i>
20	Lemon Tetra	<i>Hemigrammus erythrophthalmus</i>
20	January Tetra	<i>Hemigrammus hyanuary</i>
20	Bassam Tetra	<i>Hemigrammus marginatus</i>
20	Pronek's Tetra	<i>Hemigrammus proneki</i>
20	Pretty Tetra	<i>Hemigrammus pulcher</i>
20	Rummy-nose Tetra	<i>Hemigrammus rhodostomus</i>
20	All Hemiodopsis	<i>Hemiodopsis goeldii, huraulti</i> <i>quadrimaculatus, semitaeniatus, sterni</i>
20	Slender Hemiodus	<i>Hemiodus gracilis</i>
20	Red-tailed Flag Tetra	<i>Hyphessobrycon agulha</i>
20	Dash-Dot Tetra	<i>Hyphessobrycon bellottii</i>
20	Dawn Tetra	<i>Hyphessobrycon eos</i>
20	Harold Schultz's Tetra	<i>Hyphessobrycon haroldschultzi</i>
20	Black Neon	<i>Hyphessobrycon herbertaxelrodi</i>
20	Flag Tetra	<i>Hyphessobrycon heterorhabdus</i>
20	Neon Tetra	<i>Hyphessobrycon innesi</i>
20	Loreto Tetra	<i>Hyphessobrycon loretoensis/metae</i> <i>peruvianus</i>
20	Lemon Tetra	<i>Hyphessobrycon pulchripinnis</i>
20	Schwartz Neon	<i>Hyphessobrycon simulans</i>
20	False Ulreyi	<i>Hyphessobrycon ulreyi</i>
20	Vilma's Tetra	<i>Hyphessobrycon vilmae/stegemanni</i>
20	Jelly Bean Tetra	<i>Ladigesia roloffii</i>
20	Leporinus	<i>Leporinus</i> species
20	Spotted Metynnis	<i>Metynnis maculatus/hypsauchen</i>
20	Sharp toothed Tetra	<i>Micralestes acutidens</i>
20	Cochu's Blue Tetra	<i>Microbrycon fredcochui</i>
20	Barber's Tetra	<i>Mimagoniates barberi</i>
20	Spot tailed Moenkhausia	<i>Moenkhausia dichroura</i>
20	Glass	<i>Moenkhausia oligolepis</i>
20	Diamond	<i>Moenkhausia pittieri</i>
20	Starry Myloplus	<i>Myloplus asterias</i>
20	Schultze's Myloplus	<i>Myloplus schultzei</i>
20	Silver Mylossoma	<i>Mylossoma argenteum</i>
20	Hard bellied Characin	<i>Mylossoma duriventris</i>
20	Congo Tetra	<i>Phenacogrammus interruptus</i>
20	Flag tailed	<i>Prochilodus insignis</i>
20	Silver Prochilodus	<i>Prochilodus taeniurus</i>
20	Dragon Tetra	<i>Pseudocorynopoma doriae</i>
20	Pacu	<i>Serrasalmus</i>
20	Bristly mouthed Tetra	<i>Tyttocharax madeirae</i>



# Cichlids

## New World



(Central & South American)

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
5	None	
	<b>NORTH AMERICAN</b>	
15		<i>Herichthys</i>
	<b>CENTRAL AMERICA</b>	
10	Convict	<i>Cryptoheros nigrofasciatum</i>
15		<i>Amatitlania</i>
		<i>Amphilophus</i>
		<i>Archocentrus</i>
		<i>Chuco</i>
		<i>Cryptoheros</i>
		<i>Cichlosoma</i>
15	Nicaraguense	<i>Hypsophrys</i>
20	Dovii	<i>Nandopsis</i>
	Tuba	<i>Neetroplus</i>
15	Managuense	<i>Parachromis</i>
20		<i>Paraneetroplus</i>
		<i>Paratheraps</i>
	Spetubilius	<i>Petenia</i>
15	Jack Dempsey	<i>Rocio</i>
20		<i>Theraps</i>
		<i>Thorichthys</i>
15	Helleri	<i>Thorichthys</i>
20		<i>Tomocichla</i>
		<i>Vieja</i>
	<b>SOUTH AMERICA</b>	
15	All egg layers, mouth brooders, cave brooders and substrate spawners not other wise listed.	
		<i>Acarichthys</i>
		<i>Acaronia</i>
		<i>Aequidens</i>
15	Apistos	<i>Apistogramma</i>
		<i>Apistogrammoides</i>
		<i>Astronotus</i>
		<i>Australoheros</i>
		<i>Biotodoma</i>
		<i>Biotocus</i>
		<i>Bujurquina</i>
		<i>Caquetaia</i>
20		<i>Chaetobranchopsis</i>
20		<i>Chaetobranchus</i>



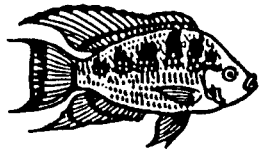
# Cichlids

## New World

(Central & South American)



<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
20	River Perch	<i>Cichla ocellaris</i>
15		<i>Cichlosoma</i>
15	Keyhole Cichlid	<i>Cleithracara</i>
20	Pike cichlid	<i>Crenicara</i>
20	Pike cichlid	<i>Crenicichla</i>
15	Checkerboard cichlid	<i>Dicrossus</i>
15	Eartheaters	<i>Geophagus</i>
		<i>Guianacara</i>
		<i>Gymnogeophagus</i>
		<i>Heroina</i>
		<i>Heros</i>
20		<i>Hoplarchus</i>
15	Chocolate cichlid	<i>Hypselecara</i>
		<i>Ivanacara</i>
		<i>Krobia</i>
		<i>Laetacara</i>
		<i>Mazarunia</i>
		<i>Mesonauta</i>
15	Rams	<i>Mikrogeophagus</i>
		<i>Nannacara</i>
15	Angelfish	<i>Pterophyllum scalare</i>
20	Wild Angelfish	<i>Pterophyllum altum</i>
20		<i>Retroculus</i>
		<i>Satanoperca</i>
20	Discus	<i>Symphysodon</i>
20		<i>Taeniacara</i>
		<i>Tahuantinsuyoa</i>
20		<i>Teleocichla</i>
20		<i>Uaru</i>



# Cichlids

## Old World

(African & Asian)



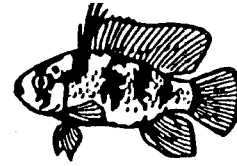
<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
5	None	
20	ASIAN CICHLIDS	<i>Etroplus, Iranocichla, Tristramella</i>
20	MADAGASCAR CICHLIDS	<i>Katria, Oxylapia, Paratilapia, Paretroplus, Ptychochromis, Ptychochromoides</i>
15	LAKE VICTORIAN All egg layers, mouth brooders, cave brooders and substrate spawners not otherwise listed.	<i>Enterochromis, Haplochromis, Harpagochromis, Hoplotilapia, Labrochromis, Lithochromis, Macroleurodus, Mbipia, Neochromis, Paralabidochromis, Platytaeniodus, Prognathochromis, Psammochromis, Ptyochromis, Pundamilia, Tridontochromis, Xystichromis, Yssichromis</i>
20	Scale eater	<i>Allochromis</i>
10	LAKE MALAWI All egg layers, mouth brooders, cave brooders and substrate spawners not otherwise listed.	<i>Alticorpus, Aristochromis, Aulonocara, Buccochromis, Caprichromis, Champsochromis, Chilotilapia, Copadichromis, Ctenopharynx, Cyathochromis, Cynotilapia, Cyrtocara, Dimidiochromis, Diplotaxodon, Docimodus, Eclerochromis, Exochochromis, Fossorochromis, Gephyrochromis, Hemitaeniochromis, Hemitilapia, Iodotropheus, Labeotropheus, Labidochromis, Lethrinops, Lichnochromis, Mchenga, Melanochromis, Metriaclima, Mylochromis, Naevochromis, Nimbochromis, Nyassachromis, Otopharynx, Pallidochromis, Petrotilapia, Placidochromis, Protomelas, Pseudotropheus, Rhamphochromis, Sciaenochromis, Stigmatochromis, Taeniochromis, Taeniolethrinops, Tramitichromis, Trematocranus, Tropheops, Tyrannochromis</i>
20	Scale eaters	<i>Corematodus, Genyochromis</i>



# Cichlids

## Old World

(African & Asian)



Points Common Name

Latin Name

15 LAKE TANGANYIKAN

All egg layers, mouth brooders, cave brooders and substrate spawners not otherwise listed.

*Altolamprologus, Asprotilapia, Aulonocranus, Baileychromis, Callochromis, Cardiopharynx, Chalinochromis, Cunningtonia, Cyathopharynx, Cyprichromis, Ectodus, Enantiopus, Eretmodus, Gnathochromis, Grammatotria, Greenwoodochromis, Hemibates, Julidochromis, Lamprologus, Lestradea, Limnochromis, Limnotilapia, Neolamprologus, Ophthalmotilapia, Paracyprichromis, Petrochromis, Pseudosimochromis, Reganochromis, Simochromis, Spathodus, Tangachromis, Tanganicodus, Variabilichromis, Xenochromis, Bathybates, Benthochromis, Boulengerochromis, Cyphotilapia, Haplotaxodon, Lepidolamprologus, Loboichilotes Microdontochromis, Telmatochromis, Trematocara, Triglachromis, Tropheus, Xenotilapia Perissodus, Plecodus*

20

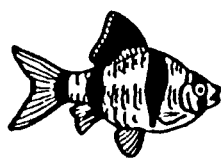
20 Scale eaters

15 OTHER AREA AFRICAN CICHLIDS

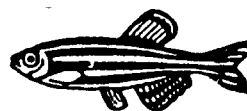
All egg layers, mouth brooders, cave brooders and substrate spawners not otherwise listed

*Alcolapia, Anomalochromis, Astatoreochromis, Astatotilapia, Benitochromis, Chetia, Chilochromis, Chromidotilapia, Congochromis, Ctenochromis, Cyclopharynx, Danakilia, Divandu, Etia, Gaurochromis, Gobiocichla, Hemichromis, Heterochromis, Konia, Limbochromis, Lipochromis, Myaka, Nanochromis, Orthochromis, Parananocromis, Pelmatochromis, Pelvicachromis, Pharyngochromis, Pseudocrenilabrus, Pterochromis, Pungu, Pyxichromis, Sargochromis, Sartherodon, Schubotzia, Schwetzochromis, Serranochromis, Steatocranus, Stomatepia, Teleogramma, Thoracoichromis, Thysochromis, Tilapia Oreochromis, Tylochromis*

20



# Cyprinids

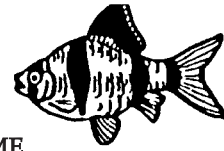


<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
5	None	
10	<b>All Danio</b>	<i>Brachydanio</i>
10	White Cloud Mountain Minnow	<i>Tanichthys albonubes</i>
10	<b>All Barbs, except where noted</b>	
15	Bream	<i>Abramis</i>
15	Spotted Barb	<i>Barbodes binotatus</i>
15	Clipper Barb	<i>Barbodes callipterus</i>
15	African Red-Finned Barb	<i>Barbodes camptacanthus</i>
15	Blackline Barb	<i>Barbodes dorsimaculatus</i>
15	Duncker's Barb	<i>Barbodes dunckeri</i>
15	Clown Barb	<i>Barbodes everetti</i>
15	Striped Barb	<i>Barbodes fasciatus</i>
15	African Banded Barb	<i>Barbodes fasciolatus</i>
15	Spot-Scale Barb	<i>Barbodes holotaenia</i>
15	Kersten's Barb	<i>Barbodes kerstenii</i>
15	T Barb/ Spanner Barb	<i>Barbodes lateristriga</i>
15	Five Banded Barb	<i>Barbodes pentazona</i>
15	Tinfoil Barb	<i>Barbodes schwanenfeldi</i>
15	Red-Finned Barb	<i>Barbodes unitantiatus</i>
15	Rainbow fish – Madagascar	<i>Bedotia geayi</i>
15	Butterfly Barb	<i>Capoeta hulstaerti</i>
15	Two Spot African Barb	<i>Capoeta puckelli</i>
15	Indian Hatchet Fish	<i>Capoeta laubuca</i>
15	Red Horse Minnow	<i>Capoeta lutrensis</i>
15	<b>All other Capoeta species</b>	<i>Capoeta anema, chlorotaenia, hexazona, usumbarae, vivparus</i>
15	<b>Goldfish</b> (all types)	<i>Carasius auratus auratus</i>
15	Rainbow fish – New Guinea	<i>Chilatherina bleberi, fasciata</i>
15	<b>Koi</b> (all types)	<i>Cyprinus carpio</i>
15	<b>Carp</b>	<i>Cyprinus carpio</i>
15	Rainbow fish – New Guinea	<i>Glossolepis incisus, maculosus, multiquamatus, ramuensis</i>
15	Rainbow fish – New Guinea	<i>Iriatherina werneria</i>
15	Rainbow fish – New Guinea	<i>Melanotaenia affinis, boesmani, catherinae, goldiei, herbertaxlrodi, irianjaya, lacustris, misoolensis, monticola, oktediensis, papuae, praecox, parkinsoni, sexlineata</i>
15	Rainbow fish – Australian	<i>Melanotaenia maccullochi, nigrans, splendida</i>
15	<b>All Rasbora's</b>	<i>Rasbora</i>
20	Rainbow fish – Australian Blue Eyes	
20	Rainbow fish – New Guinea Blue Eyes	
20	Rainbow fish – all species not listed	





# Cyprinids



POINTS COMMON NAME

LATIN NAME

- 20 Bala Shark/ Tri-color Shark
- 20 Blind African Barb
- 20 Dadio
- 20 Shiners
- 20 Hard Lipped Barb
- 20 Black Banded Osteochilus
- 20 Knife barb
- 20 Glass Barb
- 20 Striped Barb
- 20 Somphong's Barb
- 20 Bitterling
- 20 Celebes Rainbow fish

- Balantiocheilos melanopterus*
- Caecobarbus geertsii*
- Laubuca dadiburjori*
- Notropis species*
- Osteochilus hasselti*
- Osteochilus vittatus*
- Oxygaster anomalura, atpar*
- Oxygaster oxygastroides*
- Puntius lineatus*
- Puntius somphongsi*
- Rhodeus sericeus*
- Telmatherina ladigesi*



# Killifish

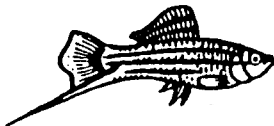


POINTS COMMON NAME

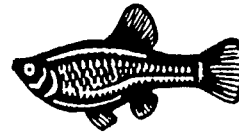
LATIN NAME

- 5 None
- 10 None
- 15 Mop spawning killifish,
- 20 All Peat spawners
- 20 Blue Galaris
- 20 Tanganyikan killifish

- Fundulopanchax sjoestedti*
- Lamprichthys tanganicus*



# Livebearers



POINTS COMMON NAME

LATIN NAME

- 5 Mosquito fish
- 5 Holbrook's Gambusia
- 5 All Limia
- 5 Molly
- 5 Merry Widow
- 5 Caudo
- 5 Guppy
- 5 Livebearer
- 5 Swordtail
- 5 Platy
- 10 Pike Top Minnow, Pike Livebearer
- 10 Sailfin Molly
- 15 Malayan Halfbeak or Wrestling Halfbeak
- 15 Branners Livebearer
- 15 Goodeids

- Gambusia affinis affinis*
- Gambusia affinis holbrooki*
- Limia*
- Mollienesia, Poecilia*
- Phallichthys amates*
- Phalloceros*
- Poecilia reticulata*
- Poecilistes, Priapella, Quintana*
- Pseuxiphophorus, Xiphophorus*
- Xiphophorus*
- Belonesox belizanus*
- Mollienesia, Poecilia velifera,*
- Dermogenys pusillus*
- Micropoecilia branneri*
- Goodeid species*



# Miscellaneous Freshwater Species

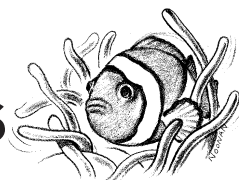


<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
5	None	
10	None	
15	Goby	<i>Goby species</i>
15	Western Sleeper	<i>Dormitator latifrons,</i>
15	Spotted Sleeper	<i>Dormitator maculatus</i>
15	Leaf Fish	<i>Monocirrhus polyacanthus</i>
20	Badis / Chameleon Fish	<i>Badis Badis badis</i>
20	Burmese Badis	<i>Badis Badis burmanicus</i>
20	Rope Fish / Snake Fish	<i>Calamoichthys calabaricus</i>
20	Snakehead	<i>Channa micropeltes</i>
20	South American Puffer	<i>Colomesus psittacus</i>
20	Tiger Fish / Datnoid	<i>Datnioides</i>
20	Distichodus	<i>Distichodus</i>
20	Knife Fish	<i>Eigenmannia, Hypopomus, Gymnotus, Xenomystus</i>
20	Siamese Stone Lapping Fish	<i>Garra taeniata</i>
20	Scaly Mormyrid	<i>Gnathonemus macrolepidotus</i>
20	Elephant-Nose	<i>Gnathonemus petersi</i>
20	Worm Jawed Mormyrid	<i>Gnathonemus tamandua</i>
20	Eel	<i>Macrogathus, Mastacembelus</i>
20	Nandus	<i>Nandus nandus</i>
20	Arowana	<i>Osteoglossum bicirrhosum</i>
20	Butterfly Fish	<i>Pantodon buchholzi</i>
20	African Leaf Fish	<i>Polycentropis</i>
20	Schomburgk's Leaf Fish	<i>Polycentrus</i>
20	Black Ghost	<i>Sternarchus albifrons</i>
20	Pipefish	<i>Syngnathus</i>
20	Needle Fish	<i>Xenetodon cancila</i>





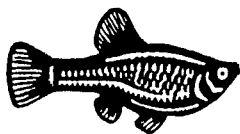
# Marine Fish, Invertebrates & Corals



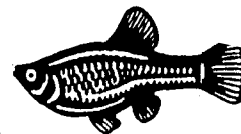
POINTS   COMMON NAME

LATIN NAME

- 5      Any freshwater snail
- 15     Any marine type snail
- 15     Any freshwater shrimp
- 20     Any marine shrimp
- 15     Soft coral
- 20     Hard coral
- 20     Any marine fish



## Native American



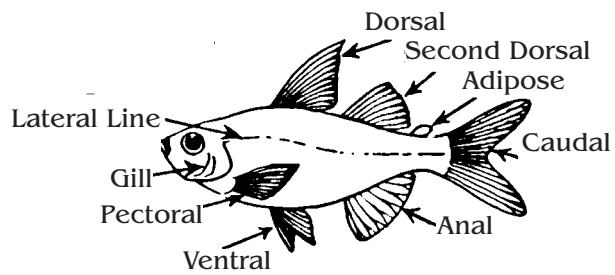
POINTS   COMMON NAME

LATIN NAME

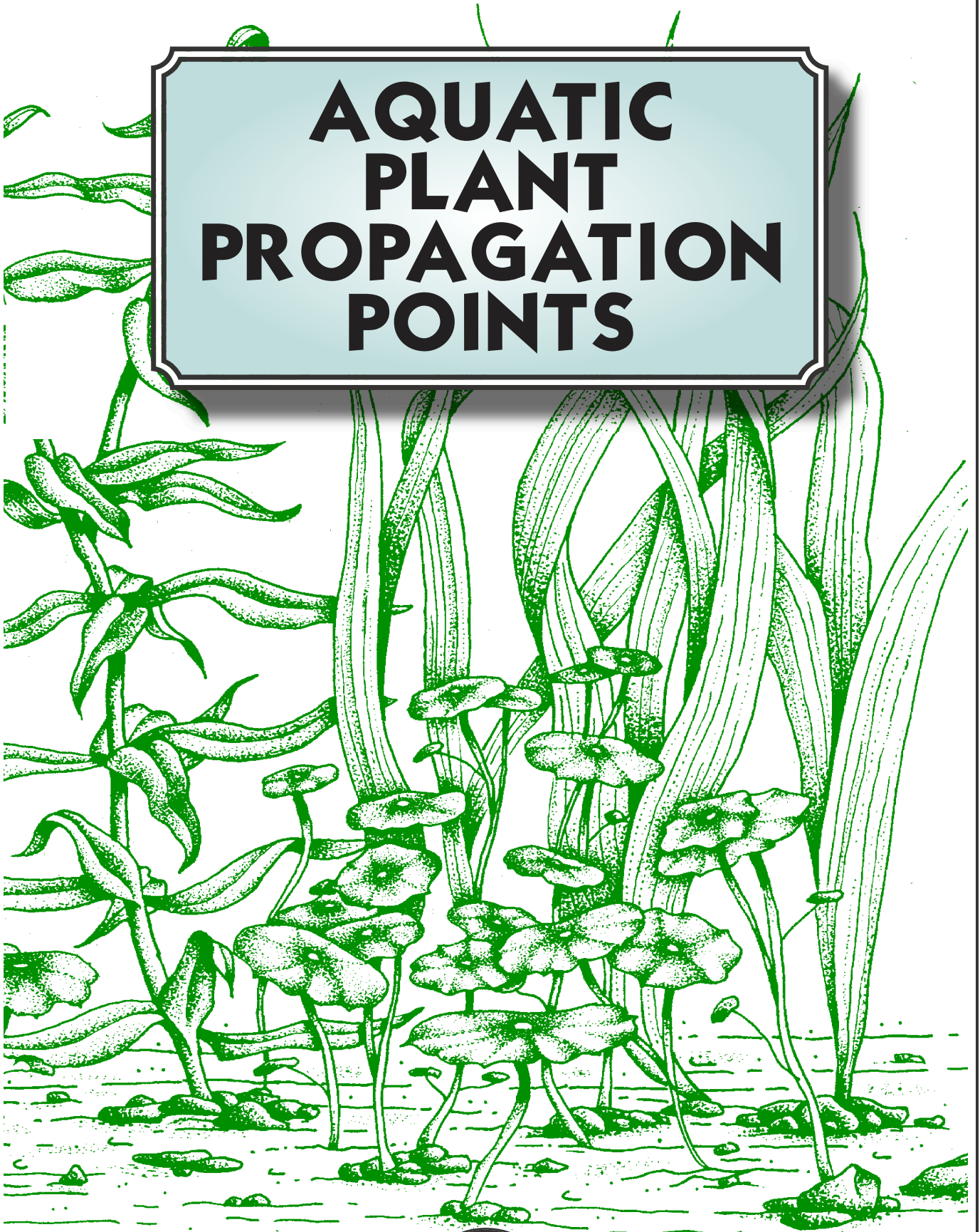
- 5      None
  - 10     None
  - 15     Sunfish
  - 20     Darters
  - 20     Stickleback
  - 20     Gars
  - 20     Bass
  - 20     Perch
  - 20     Trout
- Centrarchidae, Lepomis, Pomoxis*  
*Ammocryta, Percina, Etheostoma*  
*Gasterosteidae* species  
*Lepisosteidae* species  
*Micropterus* species  
*Percidae* species  
*Salmonidae* species



# NOTES



# AQUATIC PLANT PROPAGATION POINTS



# Aponogetons & Criniums

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
20	None	<i>Aponogeton bernierianus</i> (quadrangulare)
10	None	<i>Aponogeton boivinianus</i>
20	None	<i>Aponogeton capuronii</i>
15	Crinkled / Ruffled Aponogeton	<i>Aponogeton crispus</i> (echinatum)
20	None	<i>Aponogeton decaryi</i>
15	None	<i>Aponogeton distachyos</i> (distachum)
15	Elongated swordplant	<i>Aponogeton elongatus</i> (latifolius)
20	Madagascar Lace	<i>Aponogeton fenestralis</i>
15	None	<i>Aponogeton guilotii</i>
15	Broad-leaved Lace Plant	<i>Aponogeton henkelianus</i>
15	None	<i>Aponogeton jacobsenii</i>
10	None	<i>Aponogeton longiplumulosus</i>
20	None	<i>Aponogeton loriae</i>
20	Madagascan Lace Plant	<i>Aponogeton madagascariensis</i>
20	Drifting Swordplant	<i>Aponogeton (Saururus) natans</i> (monostachyon)
15	None	<i>Aponogeton rigidifolius</i>
15	None	<i>Aponogeton robinsonii</i> (eberhardtii)
15	None	<i>Aponogeton tenuispicatus</i>
15	Compact Aponogeton	<i>Aponogeton ulvaceus</i> (ambongensis/violaceus)
10	None	<i>Aponogeton undulatus</i>
15	None	<i>Crinium calamistratum</i>
15	Water Onion	<i>Crinium natans</i>
15	None	<i>Crinium purpurascens</i>
10	Onion Plant	<i>Crinium thaianum</i>
15	None	<i>Crinium tortifolia</i>

# Anubias & Lagenandra

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	None	<i>Anubias affinis</i>
10	Narrow-leaved Anubias	<i>Anubias angustifolia</i> "Afzelii"
10	None	<i>Anubias auriculata</i>
5	Broad-leaved Anubias	<i>Anubias barteri</i> var. 'Barteri'
5	None	<i>Anubias barteri</i> subsp. Bonsai
5	None	<i>Anubias barteri</i> var. 'Coffeefolia'
5	None	<i>Anubias barteri</i> var. 'Lanceolata'
5	Dwarf Anubias	<i>Anubias barteri</i> var. 'Nana'
10	Congo Anubias	<i>Anubias congensis</i>
10	None	<i>Anubias enfferi</i>
15	None	<i>Anubias gigantea</i>
10	None	<i>Anubias gillettii</i>
10	None	<i>Anubias gracilis</i>
15	None	<i>Anubias hastifolia</i> (auriculata/laurentii)

# Anubias & Lagenandra

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	None	<i>Anubias heterophylla</i> (bequaerti/congensis/undulata)
15	None	<i>Anubias pynaertii</i>
15	None	<i>Lagenandra jacobsenii</i>
15	None	<i>Lagenandra keralensis</i>
15	None	<i>Lagenandra lancifolia</i>
15	None	<i>Lagenandra meeboldii</i>
15	None	<i>Lagenandra</i> ( <i>Arum</i> / <i>Caladium</i> / <i>Cryptocoryne</i> ) <i>ovata</i> (ovatum/insignis)
15	None	<i>Lagenandra praetemissa</i>
15	None	<i>Lagenandra thwaitesii</i>

# Cryptocoryne

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	None	<i>Cryptocoryne affinis</i>
10	None	<i>Cryptocoryne alba</i>
10	None	<i>Cryptocoryne albida</i> (costata)
10	None	<i>Cryptocoryne amicorum</i>
10	None	<i>Cryptocoryne annamica</i>
10	None	<i>Cryptocoryne aponogetifolia</i>
10	None	<i>Cryptocoryne aquatica</i>
10	None	<i>Cryptocoryne auriculata</i>
10	None	<i>Cryptocoryne axelrodii</i>
10	None	<i>Cryptocoryne beckettii</i>
10	None	<i>Cryptocoryne bertiliihansenii</i>
10	None	<i>Cryptocoryne blassii</i>
20	None	<i>Cryptocoryne bogneri</i>
20	None	<i>Cryptocoryne bullosa</i>
10	None	<i>Cryptocoryne burmensis</i>
10	None	<i>Cryptocoryne caudata</i>
10	None	<i>Cryptocoryne</i> ( <i>Ambrosina</i> ) <i>ciliata</i>
20	None	<i>Cryptocoryne congnata</i>
15	None	<i>Cryptocoryne consobrina</i>
10	Water Trumpet	<i>Cryptocoryne cordate</i> (zonata)
10	None	<i>Cryptocoryne coronata</i>
10	None	<i>Cryptocoryne costata</i>
10	None	<i>Cryptocoryne crispulata</i> (balansae/flaccidifolia/retrospiralis/tonlinensis)
10	None	<i>Cryptocoryne cruddasiana</i>
10	None	<i>Cryptocoryne dalzellii</i>
10	None	<i>Cryptocoryne drymorrhiza</i>
15	None	<i>Cryptocoryne edithiae</i>

# Cryptocoryne

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	None	<i>Cryptocoryne elata</i>
15	None	<i>Cryptocoryne elliptica</i>
10	None	<i>Cryptocoryne evae</i>
10	None	<i>Cryptocoryne ferruginea</i>
15	None	<i>Cryptocoryne fusca</i>
15	None	<i>Cryptocoryne gasseri</i>
10	None	<i>Cryptocoryne gracilis</i>
10	None	<i>Cryptocoryne grandis</i>
10	None	<i>Cryptocoryne griffithii</i>
10	None	<i>Cryptocoryne haerteliana</i>
10	None	<i>Cryptocoryne hansenii</i>
10	None	<i>Cryptocoryne hejnyi</i>
10	None	<i>Cryptocoryne hudoroi</i>
10	None	<i>Cryptocoryne huegelii</i>
15	None	<i>Cryptocoryne jacobsenii</i>
10	None	<i>Cryptocoryne johorensis</i>
10	None	<i>Cryptocoryne keei</i>
10	None	<i>Cryptocoryne kerrii</i>
10	None	<i>Cryptocoryne korthausae</i>
10	None	<i>Cryptocoryne kwangsiensis</i>
10	None	<i>Cryptocoryne legroi</i>
15	None	<i>Cryptocoryne longicauda</i>
10	None	<i>Cryptocoryne longispatha</i>
10	None	<i>Cryptocoryne lucens</i>
10	None	<i>Cryptocoryne minima</i>
10	Moehlmann's	<i>Cryptocoryne moehlmannii</i>
15	None	<i>Cryptocoryne nevillii</i>
15	None	<i>Cryptocoryne nurii</i>
10	None	<i>Cryptocoryne pallidnervia</i>
10	Tiny Crypt	<i>Cryptocoryne parva</i>
10	None	<i>Cryptocoryne petchii</i>
10	None	<i>Cryptocoryne pontederiifolia (sulphurea)</i>
10	None	<i>Cryptocoryne pygmaea</i>
10	None	<i>Cryptocoryne (Ambrosina) retospiralis</i>
10	None	<i>Cryptocoryne ridleyi</i>
10	None	<i>Cryptocoryne roxburghii</i>
10	None	<i>Cryptocoryne sarawacensis</i>
10	Schulze's Spiral	<i>Cryptocoryne schulzei</i>
20	None	<i>Cryptocoryne scurrilis</i>
10	None	<i>Cryptocoryne serrulata</i>
10	None	<i>Cryptocoryne siamensis</i>
10	None	<i>Cryptocoryne spathulata</i>
10	Spiral Crypt	<i>Cryptocoryne (Arum) spirals (congnatoides/spirale)</i>
10	None	<i>Cryptocoryne stonei</i>



# Cryptocoryne

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
20	None	<i>Cryptocoryne striolata (ongii)</i>
15	None	<i>Cryptocoryne thwaitesii</i>
10	None	<i>Cryptocoryne tortilis</i>
10	None	<i>Cryptocoryne tortuosa</i>
15	None	<i>Cryptocoryne uenoi</i>
10	Undulate Crypt	<i>Cryptocoryne undulata (willisii)</i>
10	None	<i>Cryptocoryne unilocularis</i>
10	None	<i>Cryptocoryne usteriana</i>
10	None	<i>Cryptocoryne venemae</i>
15	None	<i>Cryptocoryne versteegii</i>
10	None	<i>Cryptocoryne vietnamensis</i>
15	None	<i>Cryptocoryne villosa</i>
10	Walker's Crypt	<i>Cryptocoryne walkeri (lutea)</i>
5	Wendt's Crypt	<i>Cryptocoryne wendtii (jahnelli/krauteri/nana/rubella)</i>
10	None	<i>Cryptocoryne wightii</i>
10	None	<i>Cryptocoryne yujii</i>
10	None	<i>Cryptocoryne yunnanensis</i>
15	None	<i>Cryptocoryne zaidiana</i>
10	None	<i>Cryptocoryne zewaldiae</i>
10	None	<i>Cryptocoryne zukalii</i>

# Floating Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	Water Velvet	<i>Azolla caroliniana (cristata/densa/portoricensis)</i>
15	Azolla Moss Fern	<i>Azolla filiculoides (arbuscula/magellanica/squamosa)</i>
20	None	<i>Azolla nilotica</i>
20	None	<i>Azolla pinnata (africana/imbricata)</i>
10	Water Hyacinth	<i>Eichhornia (Pontederiaceae) crassipes</i>
10	None	<i>Eichhornia heterospema (venezuelensis)</i>
5	None	<i>Lemna (Lenticula) gibba</i>
5	Duckweed	<i>Lemna minor</i>
10	None	<i>Lemna trisula</i>
10	Frogbit	<i>Limnobium (Hydromystria/Salvinia) laevigatum (laevigata/stoloniferum)</i>
10	None	<i>Limnobium (Hydrocharis) spongia (bosci/cordifolia)</i>
20	None	<i>Ludwigia (Jussiaea) helminthorrhiza (natans)</i>
10	None	<i>Ludwigia (Jussiaea) sedoides</i>
20	None	<i>Phyllanthus fluitans</i>
10	Water Lettuce	<i>Pista stratiotes</i>
20	None	<i>Ricciocarpus (Riccia) natans</i>
15	Fuzzy Duck Weed	<i>Salvinia auriculata (hispida)</i>
15	None	<i>Salvinia biloba</i>
15	None	<i>Salvinia cucullata</i>

# Floating Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
15	None	<i>Salvinia herzogii</i>
10	None	<i>Salvinia minima</i>
15	None	<i>Salvinia molesta</i>
10	None	<i>Salvinia natans</i>
10	None	<i>Salvinia oblongifolia</i>
10	None	<i>Salvinia odorata (cernua)</i>
5	Giant Duckweed	<i>Spirodela (Lemna) polyrhiza</i>
20	Water Chestnut	<i>Trapa natans</i>
5	Tropical Bladderwort	<i>Utricularia aurea (flexuosa)</i>
5	None	<i>Wolffia angusta</i>
10	None	<i>Wolffia arrhiza</i>
5	None	<i>Wolffia neglecta</i>
5	None	<i>Wolffiella (Wolffia/Wolffiopsis) welwitschii (conguensis)</i>

# Primitive Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
5	Nano Moss	<i>Amblystegium antipyretica</i>
15	None	<i>Bolbitis fluviatus</i>
15	African Fern	<i>Bolbitis heteroclita</i>
10	Chinese Fern	<i>Bolbitis heudelotii</i>
15	None	<i>Bolbitis hydrophylla</i>
5	Hornwort	<i>Ceratophyllum demersum</i>
5	None	<i>Ceratophyllum</i> sp. 'Peru'
5	Tropical Hornwort	<i>Ceratophyllum submersum</i>
5	Floating Fern	<i>Ceratoperis (Pteris) comuta</i>
10	Floating Watersprite	<i>Ceratoperis (Parkeria) pteridioides</i>
10	None	<i>Ceratoperis richardii</i>
5	Indian Fern	<i>Ceratoperis (Acrostichum) thalictroides (siliquosa)</i>
20	Moss Ball or Marimo Ball	<i>Cladopora (Conferva) aegagrophila (sauteri)</i>
10	None	<i>Drepanocladus</i> sp.
10	U.S. Fissidens	<i>Fissidens fontanus</i>
10	Phoenix Moss	<i>Fissidens</i> sp. 'Singapore'
10	None	<i>Fissidens splachnobryoides</i>
10	Zipper Moss	<i>Fissidens zippelianus</i>
10	Willow Moss	<i>Fontinalis antipyretica</i>
10	None	<i>Isoetes echinospora</i>
10	None	<i>Isoetes flaccida</i>
10	None	<i>Isoetes lacustris</i>
10	None	<i>Isoetes malinverniana</i>
10	None	<i>Isoetes setacea</i>
10	Quillwort	<i>Isoetes velata</i>

# Primitive Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
5	Stringy Moss	<i>Leptodictyum riparium</i>
10	None	<i>Marsilia angustifolia</i>
10	Clover Fern	<i>Marsilia drummondii</i>
10	Four Leaf Clover	<i>Marsilia exarata</i>
10	Four Leaf Clover	<i>Marsilia minuta</i>
10	Four Leaf Clover	<i>Marsilia quadrifolia</i>
5	Java Fern	<i>Microsorium (Colysis/Pleopeltis/Polypodium) pteropus (tridactylon)</i>
10	Hammer Leaf Java Fern	<i>Microsorium pteropus</i> var. 'Philippine'
10	Pellia	<i>Monosolenium (Pellia) tenerum (endiviaifolia)</i>
10	Mini Pellia	<i>Pellia endiviaifolia</i>
5	None	<i>Plagiomnium trichomanes</i>
10	None	<i>Riccardia chamedryfolia</i>
10	Crystalwort	<i>Riccia (Ricciella) fluitans (canaliculata/eudichotoma/nodosa/rhenana)</i>
5	Round Pellia / Loma Fern	<i>Subwassertang</i> sp. ( <i>Lomariopsis lineata</i> ?)
10	Taiwan Moss	<i>Taxiphyllum alternans</i>
5	Ancor Moss	<i>Taxiphyllum</i> sp. 'anchor'
5	None	<i>Taxiphyllum barbieri</i>
10	Flame Moss	<i>Taxiphyllum</i> sp. 'Flame'
5	Giant Moss	<i>Taxiphyllum</i> sp. 'Giant'
5	Green Sock Moss	<i>Taxiphyllum</i> sp. 'Green Sock'
5	Peacock Moss	<i>Taxiphyllum</i> sp. 'Peacock'
5	Spiky Moss	<i>Taxiphyllum</i> sp. 'Spiky'
5	String Moss / Japan Moss	<i>Taxiphyllum</i> sp. 'String'
10	Star Moss	<i>Tortula ruralis</i>
5	Java Moss	<i>Vesicularia barberi</i>
5	Creeping Moss	<i>Vesicularia</i> sp. 'Creeping'
5	Singapore Moss	<i>Vesicularia dubyana</i>
10	Weeping Moss	<i>Vesicularia ferriei</i>
5	Christmas Moss	<i>Vesicularia montagnei</i>
10	Erect Moss	<i>Vesicularia reticulata</i>

# Rosette Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
15	Sweet Flag	<i>Acorus calamus</i>
15	Japanese Rush	<i>Acorus gramineus (humilis/pusillus/tatarinowii)</i>
15	Malayan Sword	<i>Aglaonema simplex</i>
10	None	<i>Anthraxon</i> sp. 'Malaysia'
15	None	<i>Baldellia (Alisma/Echinodorus) ranunculoides</i>
15	None	<i>Baldellia (Alisma/Echinodorus) ranunculoides</i> subsp. <i>Repens</i>

# Rosette Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
15	None	<i>Blyxa alternifolius</i>
15	None	<i>Blyxa aubertii (echinosperma)</i>
15	Japanese Rush	<i>Blyxa (Hydrilla) japonica</i>
15	None	<i>Blyxa novoguineensis</i>
15	None	<i>Cyperus helferi</i>
10	Papyrus	<i>Cyperus papyrus</i>
15	Blue Water Hyacinth	<i>Eichornia (Pontederiaceae) azurea</i>
15	None	<i>Eichornia (Heteranthera) diversifolia</i>
15	None	<i>Eichornia (Pontederia/Monochoria) natans</i>
10	Hairgrass	<i>Eichornia (Scirpus) acicularis</i>
10	None	<i>Eleocharis sp. 'japan'</i>
10	None	<i>Eleocharis minima</i>
10	Giant Hairgrass	<i>Eleocharis montevidensis</i>
10	None	<i>Eleocharis (Scirpus) pusilla (pumilio)</i>
10	Umbrella Hairgrass	<i>Eleocharis (Chloroharis) vivpara (prolifera)</i>
10	None	<i>Eleocharis parvulus</i>
10	None	<i>Eriocaulon sp. 'africa'</i>
10	None	<i>Eriocaulon aquaticus</i>
15	Pipewort	<i>Eriocaulon cinereum</i>
20	None	<i>Eriocaulon sp. 'Gojas'</i>
20	None	<i>Eriocaulon sp. 'Mato Grosso'</i>
20	None	<i>Eriocaulon setaceum</i>
20	None	<i>Eriocaulon sp. 'Thailand'</i>
15	None	<i>Glossostigma diandra</i>
15	None	<i>Glossostigma (Tricholoma) elatinoides</i>
10	None	<i>Helanthium tenellum</i>
15	Microsword	<i>Lilaeopsis (Crantzia) brasiliensis (minor)</i>
15	Giant Microsword	<i>Lilaeopsis (Crantzia/Crantziola) carolinensis</i>
15	None	<i>Lilaeopsis macloviana</i>
10	None	<i>Lilaeopsis mauritiana</i>
15	Cobra Grass	<i>Lilaeopsis novae-zelandiae</i>
10	Shoreweed	<i>Littirella uniflora</i>
15	Fountain Plant	<i>Ophiopogon japonicus</i>
15	None	<i>Ottelia alismoides</i>
15	None	<i>Ottelia brasiliensis</i>
20	None	<i>Ottelia mesenterium</i>
15	None	<i>Ottelia ulvifolia</i>
10	None	<i>Physostegia (Amoracia/Dracocephalum/Prasium) pupurea (purpureum)</i>
20	None	<i>Ranalisma rostrata</i>
15	None	<i>Ranunculus inundatus (papulentus)</i>
15	None	<i>Reussia (Pontederia) rotundifolia</i>
15	Watercress	<i>Rorippa (Armoracia/Cochleria) aquatica</i>
10	None	<i>Sagittaria natans</i>

# Rosette Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	Giant Sagittaria	<i>Sagittaria platyphylla</i> (graminea/recuva/mohrii)
10	Dwarf Sagittaria	<i>Sagittaria (Alisma) subulata</i> (pusilla/sublatum)
10	Dwarf Sagittaria	<i>Sagittaria terres</i>
15	Water Pimpernel	<i>Samolous valerandi</i> (floribundus/parviflorus)
15	Lizard's Tail	<i>Saururus cernrus cernuus</i> (lucidus)
15	None	<i>Saururus (Spathium) chinensis</i> (chinense/loureiri)
5	Awlwort	<i>Subularia aquatica</i>
10	Dwarf Val.	<i>Vallisneria americana</i> (asiatica/biwaensis/gigantea/natans/neotropocalis/spirals/tortifolia)
10	None	<i>Vallisneria caulescens</i>
10	Corkscrew Val	<i>Vallisneria spiralis</i> (aethiopica/denseserrulata/jacquiniiana/michelii/pusilla)
10	None	<i>Vallisneria nana</i> (gracilis)

# Stem Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	None	<i>Alternanthera aquatica</i>
15	Red Telanthera	<i>Alternanthera (Telanthera) reinerckii</i>
15	Red Ivy or Joy Weed	<i>Alternanthera sessilis</i> (triandra/repens/denticulata)
10	None	<i>Ammania auriculata</i>
15	Delicate Ammania	<i>Ammania</i> sp. 'bonsai'
10	None	<i>Ammania coccinea</i>
15	Delicate Ammania	<i>Ammania gracilis</i>
20	None	<i>Ammania latifolia</i>
15	None	<i>Ammania multiflora</i>
15	None	<i>Ammania senegalensis</i> (filiformis/salsuginosa)
10	None	<i>Apalanthe granatensis</i>
15	None	<i>Bacopa</i> sp. 'Araguaia'
10	None	<i>Bacopa australis</i>
10	Dwarf Bacopa / Baby Tears	<i>Bacopa (Monnieri/Obolaria) caroliniana</i> (amplexicaulis)
15	None	<i>Bacopa</i> sp. 'Colorata'
20	None	<i>Bacopa (Herpestis/Monniera) crenata</i> (calycina/thonningii)
20	None	<i>Bacopa floribunda</i>
20	None	<i>Bacopa (Bramia/Herpestis) lanigera</i>
10	None	<i>Bacopa (Herpestis) madagascariensis</i>
10	None	<i>Bacopa (Lysimachia/Gratio/Herpestis) monnieri</i>
15	None	<i>Bacopa (Herpestis) myriophylloides</i>
10	None	<i>Bacopa</i> sp. 'Pantanal'
20	None	<i>Bacopa (Herpestis) reflexa</i>
10	Round Bacopa	<i>Bacopa rotundifolia</i>
15	Giant Cabomba	<i>Cabomba (Nectris) aquatica</i> (schwartzii)

# Stem Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
15	Green Cabomba	<i>Cabomba caroliniana (aubletii/pulcherrima)</i>
15	None	<i>Cabomba caroliniana</i> subsp. <i>Australis</i>
20	Red Cabomba	<i>Cabomba (Nectris) furcata</i> <i>(piauhyensis/pubescens/warmingii)</i>
15	None	<i>Cabomba haynesii</i>
20	None	<i>Cabomba juscata</i>
15	None	<i>Cabomba palaeformis</i>
10	Japanese Cress	<i>Cardamine lyrata</i>
10	None	<i>Crassula aquatica</i>
10	None	<i>Crassula (Tilaea) helmsii</i>
15	Water Hedge	<i>Didiplis (peplis) diandra</i>
5	Water Weed	<i>Egeria densa</i>
5	None	<i>Egeria najas</i>
20	None	<i>Egleria fluctuans</i>
15	None	<i>Elatine macropoda</i>
15	None	<i>Elatine triandra</i>
10	Anacharis	<i>Elodea (Anacharis) nuttallii</i>
10	Canadian Elodea	<i>Elodea (Udora) Canadensis</i>
15	None	Eriocaulaceae sp. "Type 2"
10	None	Eriocaulaceae sp. "Type 3"
10	Spade Leaf	<i>Gymnocoronis (Alomia/Adenostemma)</i> <i>spilanthoides (attenuata/gymnocoronis/subcordata)</i>
15	Dwarf Helzine	<i>Hemianthus callitrichoides</i>
10	Pearlweed	<i>Hemianthus (Micranthemum) micranthemoides (nuttallii)</i>
15	None	<i>Hemigraphis trajan</i>
10	None	<i>Heteranthera graminea</i>
15	None	<i>Heteranthera (Buchosia/Leptanthus) reniformis</i> <i>(aquatica/acuta/peruvianus/virginicus)</i>
10	Stargrass	<i>Heteranthera (Schollera) zosterifolia (osteniana)</i>
10	Tropical Water Violet	<i>Hottonia inflata</i>
15	None	<i>Hottonia palustris (millefolium)</i>
15	None	<i>Houttuynia cordata</i>
10	Bottom Nettle	<i>Hydrilla (Serpicula) verticillata</i>
5	None	<i>Hydrocotyle lemnoides</i>
5	Brazilian Pennywort	<i>Hydrocotyle leucocephala</i>
10	None	<i>Hydrocotyle ranunculoides (americana)</i>
15	None	<i>Hydrocotyle sibthorpiodes (japonica/rotundifolia/yabei)</i>
10	Umbrella Plant	<i>Hydrocotyle verticillata</i>
15	Pennywort	<i>Hydrocotyle vulgaris</i>
15	Water Hair	<i>Hydrothrix gardneri</i>
15	None	<i>Hydrotriche hottoniiflora</i>
10	Balsam Hygrophila	<i>Hygrophila (Ruellia/Synnema) balsamica</i>
15	None	<i>Hygrophila</i> sp. 'Bold'
15	None	<i>Hygrophila corymbosa</i> var. 'Kompact'
10	Temple Plant	<i>Hygrophila (Justicia/Nomaphilia) corymbosa (stricta)</i>

# Stem Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	Wisteria	<i>Hygrophila (Ruellia/Synnema) difformis</i> (triflora/triflorum)
10	Guiana Hygrophila	<i>Hygrophila guianensis</i> (conferta)
15	Lake Hygrophila	<i>Hygrophila lacustris</i>
10	None	<i>Hygrophila lancea</i>
15	None	<i>Hygrophila</i> sp. 'Pantanal'
5	Dwarf Hygrophila	<i>Hygrophila (Heliadelphis/Justicia/Ruellia) polysperma</i>
10	Sunset Hygrophila	<i>Hygrophila (Heliadelphis/Justicia/Ruellia)</i> <i>polysperma</i> var 'Sunset'
15	None	<i>Hygrophila</i> sp. 'Porto Velho'
15	None	<i>Hygrophila</i> sp. 'Red'
15	None	<i>Hygrophila</i> sp. Rio Araguaia
15	None	<i>Hygrophila</i> sp. Roraima
10	None	<i>Hygrophila salicifolia</i> (angustifolia)
10	None	<i>Hygrophila</i> sp. 'Sarawak'
5	Water Star	<i>Hygrophila</i> sp. 'Tiger'
10	None	<i>Juncus repens</i>
10	None	<i>Lagarosiphon (Udora) cordofanus</i>
15	None	<i>Lagarosiphon madagascariensis</i> (densus)
5	African Water Weed	<i>Lagarosiphon (Elodea) major</i> (crispa/muscoides)
10	Giant Ambulia	<i>Limnophila (Cyrilla) aquatica</i>
15	None	<i>Limnophila (Ambulia) aromatica</i>
15	None	<i>Limnophila aromaticoides</i>
15	None	<i>Limnophila (Ambulia) dasyantha</i>
10	None	<i>Limnophila glabra</i>
15	None	<i>Limnophila (Columnnea) heterophylla</i>
15	None	<i>Limnophila hippuroides</i>
15	Indian Ambulia	<i>Limnophila (Hottonia) indica</i>
15	None	<i>Limnophila</i> sp. 'Mini'
10	Dwarf Ambulia	<i>Limnophila (Hottonia) sessiliflora</i>
10	None	<i>Lindernia</i> sp. 'Anagalis'
15	None	<i>Lindernia dubia</i>
15	None	<i>Lindernia</i> sp. 'India'
10	None	<i>Lindernia (Gratiola/Ilysanthes) paviflora</i> (capensis/radicans)
15	None	<i>Lindernia rotundifolia</i>
10	None	<i>Lobelia dortmanna</i>
10	Scarlet Lobelia	<i>Lobelia cardinalis</i>
15	None	<i>Lobelia (Pratia/Rapuntium) purpurascens</i> (ilicfolia)
10	None	<i>Ludwigia (Isnardia/Ludwigiantha)</i> <i>arcuata</i> (pedunculosa)
10	None	<i>Ludwigia (Ludwigiantha) brevipes</i>
15	Red Star Ludwigia	<i>Ludwigia (Jussiaea) glandulosa</i> (brachyca/cylindrica/hetrophylla/peruensis)
20	None	<i>Ludwigia (Jussiaea) inclinata</i>

# Stem Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
15	None	<i>Ludwigia inclinata</i> var. <i>verticillata</i>
15	None	<i>Ludwigia inclinata</i> var. <i>verticillata</i> 'Cuba'
20	None	<i>Ludwigia inclinata</i> var. <i>verticillata</i> 'Pantanal'
15	None	<i>Ludwigia ovalis</i>
10	None	<i>Ludwigia (Isnardia) palustris</i>
10	Creeping Ludwigia	<i>Ludwigia repens</i>
20	None	<i>Ludwigia senegalensis</i>
10	Creeping Jenny	<i>Lysimachia (Nummularia) nummularia</i> ( <i>repens/rotundifolia</i> )
15	None	<i>Mayaca fluviatilis (aubletii/vandellii)</i>
15	None	<i>Mayaca sellowiana</i>
15	Giant Baby's Tears	<i>Micranthemum (Anonymos/Globifera) umbrosum</i> ( <i>orbiculatum/umbrosus</i> )
20	None	<i>Microcarpaea minima</i>
10	None	<i>Murdania</i> sp.
10	Water Forget-Me-Not	<i>Myosotis scorpioides</i>
15	Parrot's Feather	<i>Myriophyllum (Enydria) aquaticum</i> ( <i>aquaticum/brasiliense/elatinoides/proserpinacoides</i> )
15	None	<i>Myriophyllum dicoccum</i>
15	None	<i>Myriophyllum heterophyllum</i>
10	None	<i>Myriophyllum mattogrossense</i>
10	Foxtail	<i>Myriophyllum (Potamogeton) pinnatum</i> ( <i>hippuroides/scabratum</i> )
10	Filigree Frill	<i>Myriophyllum simulans (propinquum/variifolium)</i>
5	None	<i>Myriophyllum spicatum</i>
20	Red Myriophyllum	<i>Myriophyllum tuberculatum</i> ( <i>indicum/spathulatum/tetrandrum</i> )
10	None	<i>Myriophyllum ussuriense (verticillatum)</i>
10	None	<i>Najas</i> sp. 'Argentina'
10	None	<i>Najas conferta (argura/hoehnei)</i>
10	None	<i>Najas flexilis</i>
10	None	<i>Najas (Caulinia) guadalupensis (microdon)</i>
10	None	<i>Najas (Caulinia) indica (kingii)</i>
10	None	<i>Najas (Caulinia) marina</i>
10	None	<i>Najas</i> sp. 'Roraima'
20	Watercress	<i>Nasturtium officinale</i>
20	None	<i>Nesaea (Ammania) crassicaulis (polyantha)</i>
20	None	<i>Nesaea pedicellata</i>
20	Red Nesaea	<i>Nesaea</i> sp. 'Red'
5	None	<i>Nesaea triflora</i>
10	None	<i>Nitella flexilis</i>
10	Stonewort	<i>Nitella zosterak</i>
15	None	<i>Penthorum sedoides</i>
15	Pillwort	<i>Pilularia americana</i>
15	None	<i>Pilularia globulifera</i>



# Stem Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
15	None	<i>Poaceae</i> sp. 'Purple Bamboo'
15	Little Star	<i>Pogostemon helferi</i>
20	None	<i>Pogostemon (Dysophylla/Eusteralis/Mentha) stellata (benthamiana/ramoissima)</i>
15	None	<i>Pogostemon yatabeanus</i>
15	None	<i>Polygonum</i> sp. 'Acre'
15	None	<i>Polygonum hydropiperoides</i>
10	None	<i>Polygonum javanicum</i>
10	None	<i>Polygonum</i> sp. 'Kawagoneum'
15	None	<i>Polygonum pedunculare</i>
15	None	<i>Polygonum</i> sp. 'Porto Vehlo'
15	None	<i>Polygonum</i> sp. 'Ruby'
15	None	<i>Polygonum</i> sp. 'Sao Paulo'
10	None	<i>Potamogeton crispus</i>
15	None	<i>Potamogeton dentatus</i>
10	Curly Pondweed	<i>Potamogeton gayi</i>
10	None	<i>Potamogeton helferi</i>
10	None	<i>Potamogeton mascarensis</i>
10	None	<i>Potamogeton natans</i>
10	None	<i>Potamogeton octandrus</i>
10	Perfoliate Pondweed	<i>Potamogeton perfoliatus</i>
10	None	<i>Potamogeton pusillus</i>
10	None	<i>Potamogeton schweinfurthii (lucens)</i>
10	None	<i>Potamogeton wrightii</i> ( <i>javanicus/malaianus/nodosus/vietnam</i> )
10	None	<i>Potamogeton zosteriformis</i>
15	None	<i>Proserpinaca palustris</i>
10	None	<i>Rotala</i> sp. 'Bonsai'
10	None	<i>Rotala</i> sp. 'Colorata'
15	None	<i>Rotala</i> sp. 'Gojas'
10	None	<i>Rotala</i> sp. 'Green'
15	None	<i>Rotala hippuris</i>
20	Giant Red Rotala	<i>Rotala (Ameletia) macrandra (magenta)</i>
20	None	<i>Rotala mexicana</i>
15	None	<i>Rotala mini type 1</i>
15	None	<i>Rotala mini type 2</i>
15	None	<i>Rotala</i> sp. 'Nanjenshan'
20	None	<i>Rotala occultifolia</i>
15	None	<i>Rotala</i> sp. 'pearl'
15	None	<i>Rotala pusilla (araguia)</i>
15	None	<i>Rotala ramosior</i>
10	Dwarf Rotala	<i>Rotala (Ammannia) rotundifolia (indica)</i>
15	None	<i>Rotala verticillaris</i>
20	None	<i>Rotala</i> sp. 'Vietnam'

# Stem Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
20	Whorly Rotala	<i>Rotala (Ammania/Hydrolythrum) wallichii</i> ( <i>myriophylloides</i> )
15	None	<i>Selliera radicans</i>
10	Mexican Oak	<i>Shinnersia/Trichocoronis rivularis</i>
20	None	<i>Tonina</i> sp. 'Belem'
20	None	<i>Tonina (Eriocaulon/Hyphydra) fluvialalis</i> ( <i>amplexicaule/amplexicaulis</i> )
20	None	<i>Tonina</i> sp. 'Manaus'
20	None	<i>Tonina uaupes</i>
10	None	<i>Utricularia bifida</i>
10	None	<i>Utricularia foliosa</i>
10	Bladderwort	<i>Utricularia gibba</i>
10	None	<i>Utricularia graminifolia</i>
10	None	<i>Utricularia inflexa (thonningii)</i>
10	None	<i>Utricularia stellaris</i>
5	None	<i>Zosterella dubia</i>

# Sword Plants

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	Amazon Swordplant	<i>Echinodorus amazonicus (brevipedicellatus)</i>
10	None	<i>Echinodorus angustifolius</i>
10	None	<i>Echinodorus aschersonianus (nulliglandulosus)</i>
10	None	<i>Echinodorus barthii</i>
10	Cellophane Sword	<i>Echinodorus (Alisma) berteroi (patagonicus/rostratus)</i>
10	None	<i>Echinodorus bleheri (platyphylla/rangeri)</i>
10	None	<i>Echinodorus (Alisma) bolivianum (austroamericanus)</i>
10	Radicans Sword	<i>Echinodorus cordifolius</i>
10	None	<i>Echinodorus (Alisma) grandiflorus</i> ( <i>grandiflorum/argentinensis</i> )
10	Large-flowered Amazon	<i>Echinodorus grandiflorus</i> subsp. <i>aureus (muricatus)</i>
10	None	<i>Echinodorus grisebachii (gracilis)</i>
10	Blac-red Amazon	<i>Echinodorus horemanii</i>
10	None	<i>Echinodorus horizontalis</i>
10	None	<i>Echinodorus latifolius</i>
15	None	<i>Echinodorus longiscapus</i>
10	None	<i>Echinodorus macrocarpus</i>
10	Large-leaved Amazon	<i>Echinodorus (Alisma) macrophyllus (macrophyllum)</i>
10	None	<i>Echinodorus (Alisma) macrophyllus</i> subsp. <i>Scaber</i>
10	Ruffled Sword	<i>Echinodorus martii (major/leopoldina)</i>
15	Opaque Amazon	<i>Echinodorus opacus</i>
15	Red Amazon	<i>Echinodorus osrisis (aureobrunneus)</i>
10	None	<i>Echinodorus (Sagittaria/Alisma) palaefolius</i> ( <i>ellipticum/palaefolium</i> )

# Sword Plants

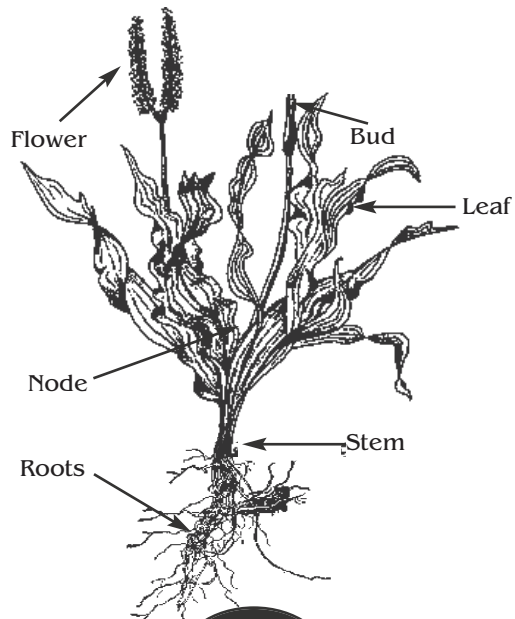
<u>Points</u>	<u>Common Name</u>	<u>Latin Name</u>
10	None	<i>Echinodorus paniculatus (cylindricus)</i>
10	Black Amazon	<i>Echinodorus parviflorus (peruensis/tocantins)</i>
15	None	<i>Echinodorus parviflorus</i> var. 'Tropica Rodette'
15	None	<i>Echinodorus pellucidus</i>
15	None	<i>Echinodorus portoalegrensis</i>
10	Broad Leaf Chain Sword	<i>Echinodorus quadricostatus (magdalensis)</i>
10	None	<i>Echinodorus schlueteri</i>
15	None	<i>Echinodorus (Alisma) subalatus (subalatum/longistylis)</i>
15	None	<i>Echinodorus (Alisma) subalatus</i> subsp. <i>Andrieuxii (ellipticus)</i>
10	Pygmy Chain Sword	<i>Echinodorus (Alisma) tenellus (parvulus)</i>
10	Uruguay Sword	<i>Echinodorus uruguayensis (horemanii/africanus)</i>

# Water Lilies

<u>POINTS</u>	<u>COMMON NAME</u>	<u>LATIN NAME</u>
10	None	<i>Barclaya (Hydrostemma) longifolia (oblonga/pierreana)</i>
15	None	<i>Barclaya (Hydrostemma) motleyi</i>
15	None	<i>Hydrocleys (Ostenia) martii (uruguayensis)</i>
15	None	<i>Hydrocleys mattogossensis</i>
15	None	<i>Hydrocleys modesta</i>
15	Water Poppy	<i>Hydrocleys (Stratiotes) nymphoides</i>
15	None	<i>Hydrocleys parviflora</i>
10	Spatterdock	<i>Nuphar (Nymphaea) japonica (japonicum/lutea/subintegerrimum)</i>
15	Cape Fear Spatterdock	<i>Nuphar sagittifolium</i>
10	None	<i>Nymphaea daubenyana</i>
10	None	<i>Nymphaea glandulifera (blanda)</i>
10	Tiger Lotus	<i>Nymphaea lotus (thermalis/rubra/zenkeri)</i>
15	Pink Water Lily	<i>Nymphaea masaniello</i>
10	None	<i>Nymphaea micrantha (caerulea)</i>
10	None	<i>Nymphaea rudgeana (ampla)</i>
15	Small Yellow Water Lily	<i>Nymphaea tetragona</i>
15	Banana Plant	<i>Nymphoides (Anonymos/Limnanthemum/Menyanthes/Villarsia) aquatica (trachysperma)</i>
10	None	<i>Nymphoides (Limnanthemum) ezannoi (senegelense)</i>
10	None	<i>Nymphoides geminata</i>
10	None	<i>Nymphoides (Menyanthes) indica (humboldtiana)</i>
10	None	<i>Nymphoides indica</i> subsp. <i>occidentalis</i>
10	None	<i>Nymphoides</i> sp. 'Taiwan'
10	None	<i>Nymphoides (Limnanthemum) thunbergiana</i>

Please note: Any plants propagated (including pond plants) which are not listed will be counted as 10 points unless HAP chairperson decides otherwise.

# NOTES





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## Acknowledgements

**W**e must thank the following persons and groups for their direct and indirect help in the creation, shaping and completion of this manual. We believe that this is the first manual to address all areas of the aquatic hobbyist's pursuits and pleasures: freshwater fish, marine fish, corals, invertebrates and plants. It is hoped that both individuals and clubs will use and share this manual for the promotion of breeding and propagation of aquatic life in their personal environments.

### PERSONAL THANKS GO TO:

Dr. Ted Coletti, North Jersey Aquarium Society  
Greater City Aquarium Society  
Motor City Aquarium Society  
Tropical Fish Society of Rhode Island  
Dorothy Reimer, Aquatic Gardeners Association  
Central New York Aquarium Society  
Nassau County Aquarium Society

### BROOKLYN AQUARIUM SOCIETY MEMBERS:

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John Todaro  
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DESIGN: John Todaro  
ILLUSTRATIONS: Norman Dougherty, Chris Giam, Julia Noonan, Shelly Sacks

# BROOKLYN AQUARIUM SOCIETY BAP/HAP SUBMISSION FORM

MEMBER'S NAME:			
SPECIES LATIN NAME:			
SPECIES COMMON NAME:			
DATE SPAWNED/PROPAGATED:		CLASS	
SPECIES TYPE: (CHECK ONE)	<input type="checkbox"/> FISH <input type="checkbox"/> INVERT	<input type="checkbox"/> CORAL	<input type="checkbox"/> PLANT
WATER TYPE: (CHECK ONE)		<input type="checkbox"/> SALT WATER	<input type="checkbox"/> BRACKISH
TANK SIZE		SUBSTRATE COLOR	
FILTER TYPE		TEMPERATURE	
WATER CHANGE VOLUME		pH	
WATER CHANGE FREQUENCY		HARDNESS (GH)	
SUBSTRATE TYPE		SPECIFIC GRAVITY (SP.G.)	
SUBSTRATE DEPTH		NUMBER OF FRY	
FOOD(S) USED (CHECK ALL THAT APPLY) <input type="checkbox"/> Live <input type="checkbox"/> Frozen <input type="checkbox"/> Flake <input type="checkbox"/> Freeze Dried <input type="checkbox"/> Other _____			
SPECIES BRED ON/IN (CHECK ALL THAT APPLY) <input type="checkbox"/> Rock <input type="checkbox"/> Log <input type="checkbox"/> Cave <input type="checkbox"/> Plant <input type="checkbox"/> Glass <input type="checkbox"/> Peat <input type="checkbox"/> Pipe <input type="checkbox"/> Mop <input type="checkbox"/> Filter Tube <input type="checkbox"/> Earth <input type="checkbox"/> Other: _____			

• For Corals & Plants Fill Out The Section Below As Well •

PROPAGATION METHOD USED:	
TYPE OF LIGHTING USED:	
TOTAL LIGHTING WATTAGE	# OF HOURS ILLUMINATION
FERTILIZER AND SUPPLEMENTS USED (IF ANY)	HOW MUCH / HOW OFTEN
1	
2	
3	
4	
5	
6	
7	
8	

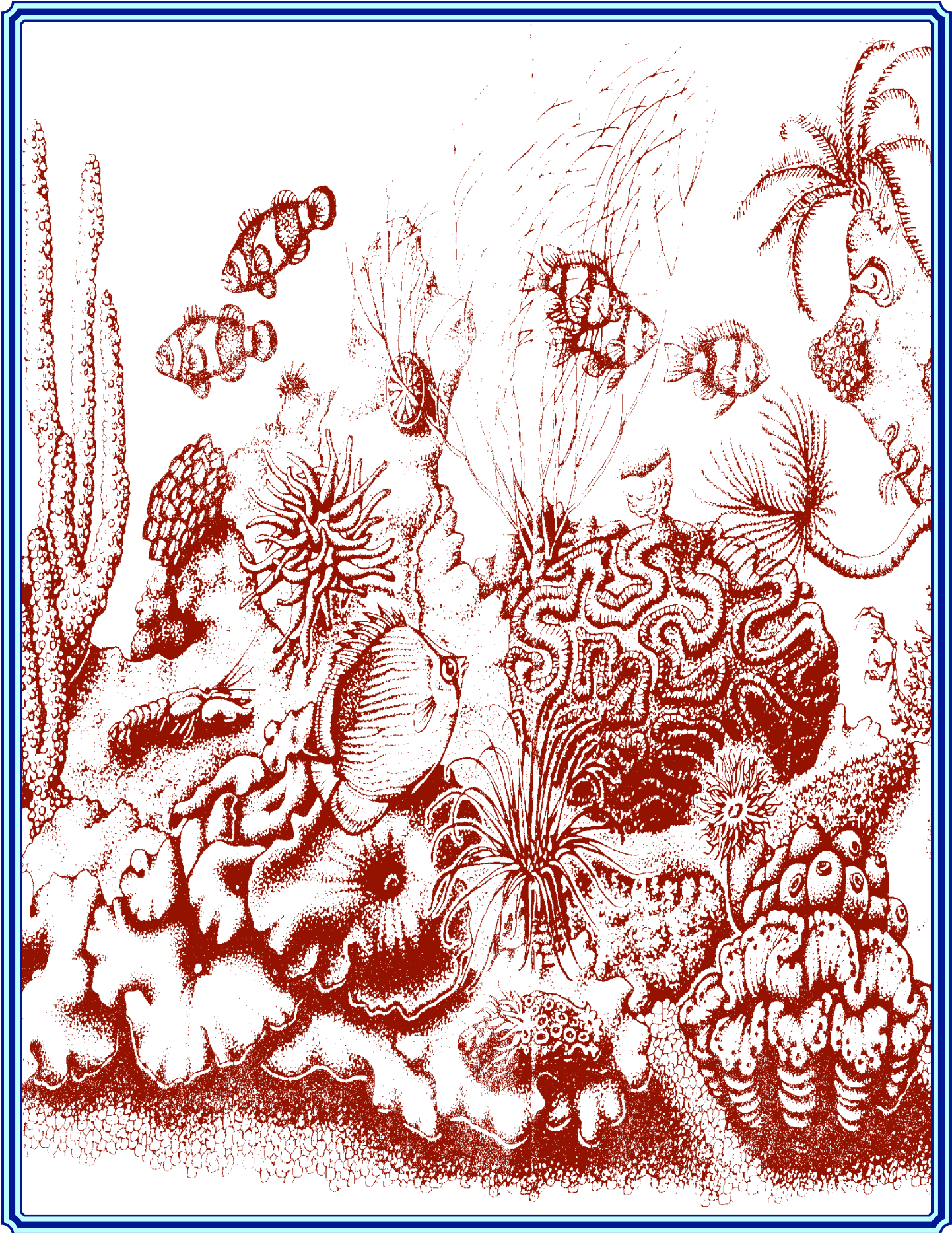
USING CARBON ENRICHMENT?  NO  YES - DESCRIBE:

WITNESSED BY \_\_\_\_\_ DATE: \_\_\_\_\_

### DO NOT WRITE BELOW THIS LINE ---OFFICIAL USE ONLY

ARTICLE SUBMITTED	# OF PAGES
FIRST TIME BAS SPAWN	FLOWERED
RE-VISITED BY	DATE
CERTIFICATE #	POINTS
DATE PRESENTED	BAP CHAIRPERSON

*(Make copies of form as you need to register your spawns and propagations with the BAP/HAP)*





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