

Tropical Fish Collecting, Rhode Island Style

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by

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The State of Rhode Island may not seem to be a likely place to find tropical marine fishes, yet every summer and early fall, quite a few fishes of several species are available to collectors who are willing to get wet (see Table 1, p. 18). This is possible because of the whims of nature and Rhode Island's location and geographic features.

In the spring, many species of marine fishes which inhabit Florida, the Bahamas, and Bermuda spawn. The eggs and larvae of these fishes spend the early stages of their lives as pelagic drifters, at the mercy of wind, tides and currents. Each year a small percentage of these fishes are swept on a one-way journey north, on the Gulf Stream, the strongest current in the Western Atlantic.

As summer progresses, the local ocean waters of southern New England are at 65-70°F. This is suitable for the young fry to survive and develop. Periodically, a warm water eddy breaks from the Gulf Stream. It carries with it a microcosm of life. Sargassum weed, flotsam, and drifting debris form a jungle, which many of these tropical fishes, and several invertebrates, use as a protective cover.

These eddies are much like bubbles. The warmer, more saline Gulf Stream water does not easily mix with Rhode Island's cooler, less saline water. This concentrates the fishes as they drift shoreward.

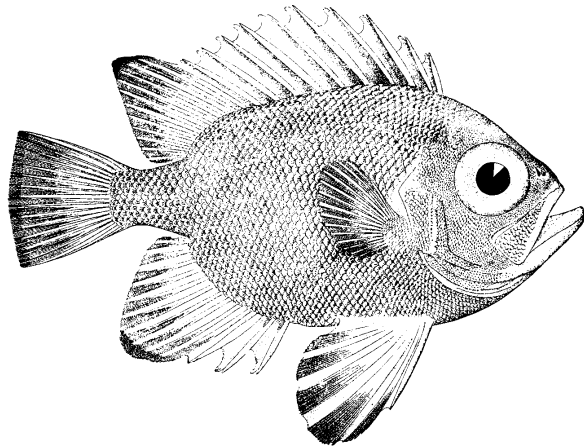
Seasonal southerly winds help guide some of these eddies into Narragansett Bay, a large, funnel-shaped body that is the largest geographic feature of Rhode Island. Once in shallow water, these juveniles seek out cover such as eelgrass beds or littoral areas for protection. At this point in their journey, they are finally in reach of collectors, like myself, who eagerly await their arrival.

Typical of what's available to collectors in southern New England are the results of a collecting trip I took on August 3, 1997. That day, I made the 20 minute drive from my home to Newport, Rhode Island and picked up my seining partner, Tom. Our gear consisted of good rubber dive boots, wetsuits, and a 50 x 4 foot beach seine with a 3/16 inch mesh. We also brought several five gallon buckets, to transport our specimens home.

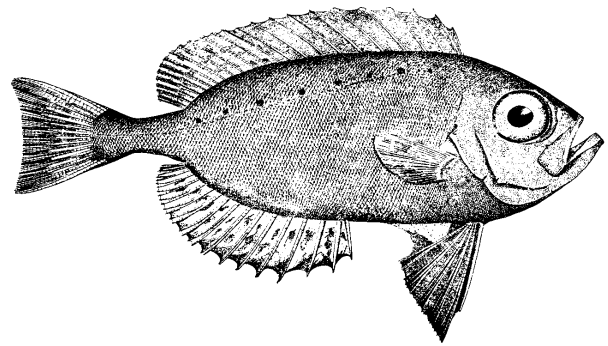
We decided to collect at King's Point Beach. This is a south-facing ocean beach with patches of rubble and shell, interspersed with thick growths of eelgrass. The tide was low and the light southwest wind was comfortable. We waded out to about chest depth, and made short hauls through the grass beds.

After several hauls, we were rewarded with a number of specimens to take home. For starters, we netted a gorgeous 2-1/2 inch long short bigeye (*Pristigenys alta*, next page, top right), a nocturnal fish which is bright red and has huge, light-gathering eyes. We also got several spotfin butterflyfishes (*Chaetodon ocellatus*, front cover, bottom), dainty fishes with long snouts and saffron yellow fins. These flit about an aquarium, pecking food items off the rockwork, gravel, and plants.

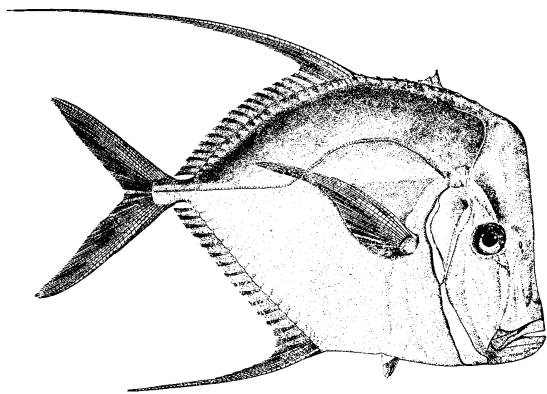
Our next haul yielded a small school of Florida pompano (*Trachinotus carolinus*) and two beautiful look-downs (*Selene vomer*, next page, bottom right). Both species are in the jack family, a group of fishes common in the tropics. With their brilliant silvery sides reflecting light, they resembled newly minted coins. I'm always amazed at how such highly visible fish, which spend their lives over open, sandy, or rubble bottoms, can avoid



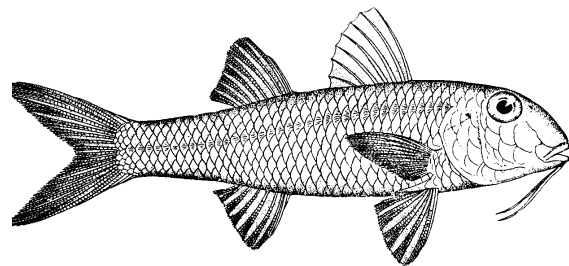
short bigeye  
*Pristigenys alta*



bigeye  
*Priacanthus arenatus*



lookdown  
*Selene vomer*



red goatfish  
*Mullus auratus*

predation by local speedsters such as striped bass and bluefish. I was glad to take them into “protective custody!”

On our last haul through the remaining grass beds, we got two very interesting fishes. One was a small lined seahorse (*Hippocampus erectus*). Its prehensile tail and tilted head make it an interesting creature. The other fish, a bluespotted cornetfish (*Fistularia tabacaria*), resembled a pencil with eyes. A long, tubular snout and streamer-like caudal filaments make this guy a real oddball.

In addition to these jewels, we also collected many native fishes which inhabit Rhode Island waters year 'round. We released Atlantic silverside (*Menidia menidia*), northern pipefish (*Syngnathus fuscus*), winter flounder (*Pleuronectes americanus*), grubby sculpin (*Myoxocephalus aeneus*), black sea bass (*Centropristis striata*), and menhaden (*Brevoortia tyrannus*). These fishes are interesting in their own right, and merit a separate article themselves.

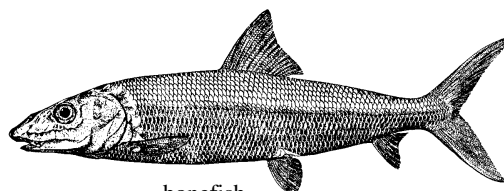
Our quarry on this trip, however, was the tropical strays, and we did well. From a conservation standpoint, the collecting we do is strictly for the fishes' benefit. All of these fish will perish when late fall and early winter temperatures drop to lethal levels. And so, there are no worries about overfishing or bag limits. Moreover, a license is not necessary to do this kind of fishing in the state of Rhode Island.

It's apparent that a good variety of marine fishes can be collected with a little persistence and a lot of fun! The greatest excitement is the complete unpredictability of the catch. You just never know what will turn up in your nets. In some seasons, butterfly fishes are common; in others, it's damselfishes. That adds spice to the whole experience.

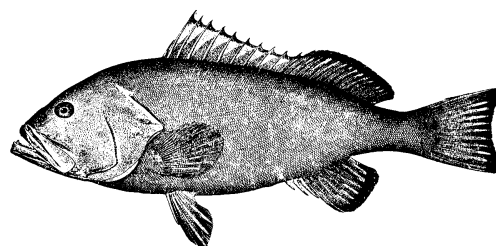
So, the next time you're visiting southern New England in the summer, think about a tropical marine fish safari. It will be an experience you won't soon forget!

**Table 1.** List of tropical fishes and other interesting seasonal visitors I have collected over the past eight summers off the coast of Rhode Island.

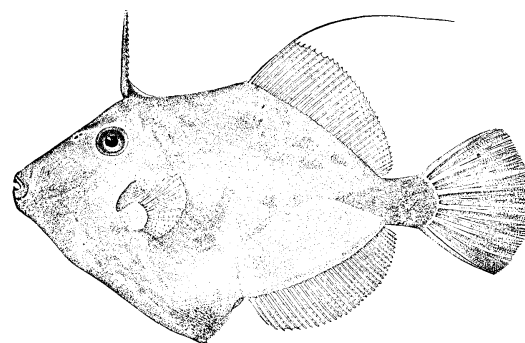
| Family         | Species                          | Common name            |
|----------------|----------------------------------|------------------------|
| Albulidae      | <i>Albula vulpes</i>             | bonefish               |
| Synodontidae   | <i>Synodus foetens</i>           | inshore lizardfish     |
|                | <i>Trachinocephalus myops</i>    | snakefish              |
| Ophidiidae     | <i>Ophidion marginatum</i>       | striped cusk-eel       |
| Belontiidae    | <i>Strongylura marina</i>        | Atlantic needlefish    |
| Holocentridae  | <i>Holocentrus bullisi</i>       | deepwater squirrelfish |
| Fistulariidae  | <i>Fistularia tabacaria</i>      | bluespotted cornetfish |
| Syngnathidae   | <i>Hippocampus erectus</i>       | lined seahorse         |
| Serranidae     | <i>Epinephelus morio</i>         | red grouper            |
|                | <i>Epinephelus niveatus</i>      | snowy grouper          |
|                | <i>Mycteroperca bonaci</i>       | black grouper          |
|                | <i>Mycteroperca phenax</i>       | scamp                  |
| Priacanthidae  | <i>Priacanthus arenatus</i>      | bigeye                 |
|                | <i>Pristigenys alta</i>          | short bigeye           |
| Rachycentridae | <i>Rachycentron canadum</i>      | cobia                  |
| Carangidae     | <i>Caranx crysos</i>             | blue runner            |
|                | <i>Caranx hippos</i>             | crevalle jack          |
|                | <i>Selene setapinnis</i>         | Atlantic moonfish      |
|                | <i>Selene vomer</i>              | lookdown               |
|                | <i>Seriola zonata</i>            | banded rudderfish      |
|                | <i>Trachinotus carolinus</i>     | Florida pompano        |
| Lutjanidae     | <i>Lutjanus analis</i>           | mutton snapper         |
|                | <i>Lutjanus griseus</i>          | gray snapper           |
|                | <i>Lutjanus jocu</i>             | dog snapper            |
|                | <i>Lutjanus mahogoni</i>         | mahogany snapper       |
| Gerreidae      | <i>Eucinostomus melanopterus</i> | flagfin mojarra        |
| Sciaenidae     | <i>Leiostomus xanthurus</i>      | spot                   |
| Mullidae       | <i>Mullus auratus</i>            | red goatfish           |
|                | <i>Pseudupeneus maculatus</i>    | spotted goatfish       |
| Chaetodontidae | <i>Chaetodon capistratus</i>     | four-eye butterflyfish |
|                | <i>Chaetodon ocellatus</i>       | spotfin butterflyfish  |
|                | <i>Chaetodon striatus</i>        | banded butterflyfish   |
| Pomacanthidae  | <i>Holacanthus bermudensis</i>   | blue angelfish         |
| Pomacentridae  | <i>Pomacentrus leucostictus</i>  | beaugregory            |
|                | <i>Pomacentrus partitus</i>      | bicolor damselfish     |
| Mugilidae      | <i>Mugil cephalus</i>            | striped mullet         |
| Sphyraenidae   | <i>Sphyraena borealis</i>        | northern sennet        |
| Balistidae     | <i>Aluterus schoepfi</i>         | orange filefish        |
|                | <i>Balistes caprisacus</i>       | gray triggerfish       |
|                | <i>Balistes vetula</i>           | queen triggerfish      |
|                | <i>Monacanthus hispidus</i>      | planehead filefish     |
| Ostraciidae    | <i>Lactophrys quadricornis</i>   | scrawled cowfish       |
|                | <i>Lactophrys trigonus</i>       | trunkfish              |
| Tetraodontidae | <i>Sphoeroides spengleri</i>     | bandtail puffer        |



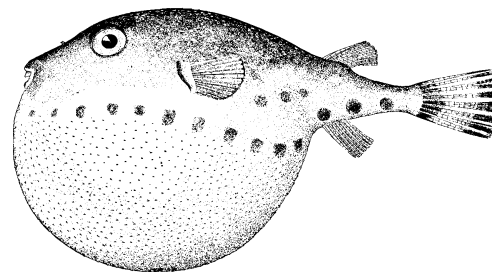
bonefish  
*Albula vulpes*



red grouper  
*Epinephelus morio*



planehead filefish  
*Monacanthus hispidus*



bandtail puffer  
*Sphoeroides spengleri*

The foureye butterflyfish, *Chaetodoncapistratus* (top) and the spotfin butterflyfish, *Chaetodonocellatus* (bottom), are among the 44 fishes collected by Michael Borgia off the coast of Rhode Island (pp. 16-18). Both species can be maintained in saltwater aquaria; the trick is getting them to recognize food. John R. Quinn in *Our Native Fishes* (1990) recommends collecting chunks of marine growth which contain food items the butterfly-fishes can graze upon. As they adjust to aquarium life, gradually wean them over to live brine shrimp and frozen and freeze-dried foods. Cover illustrations, and all illustrations in Mr. Borgia's article, are from David Starr Jordan and Barton W. Evermann's *The Fishes of North and Middle America* (1896-1900).

