

# Species Spotlight:

## American Goosefish – (*Lophius americanus*)

A.K.A. (monkfish, angler, allmouth, all-bellows, bellyfish, fishing frog, headfish, molligut, molykite, “poor-man’s lobster”, sea-devil)

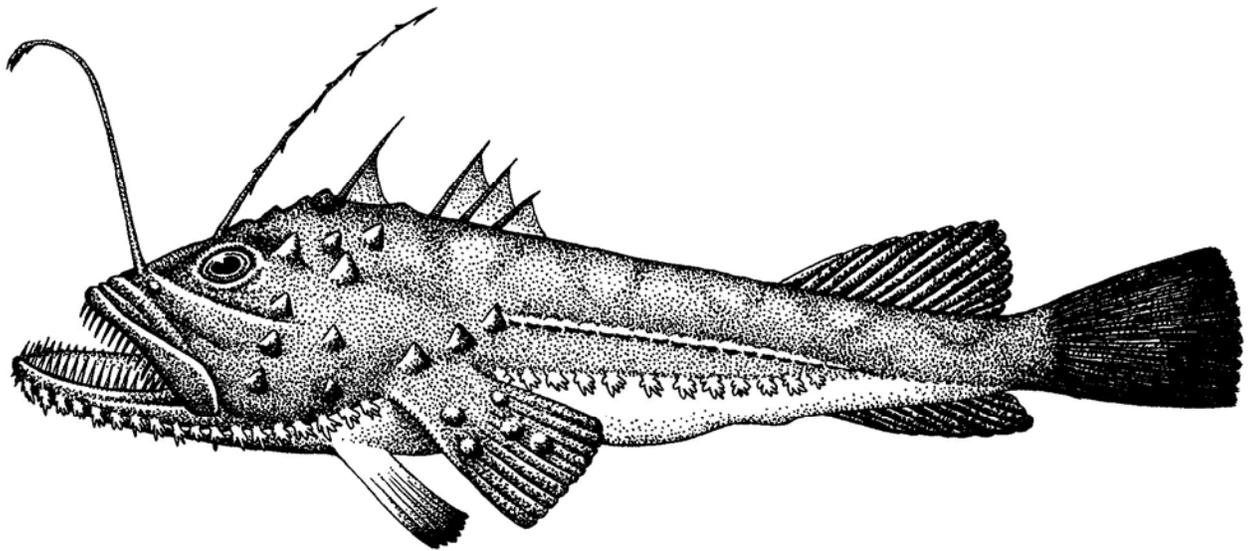
**Class:** Actinopterygii

**Order:** Lophiiformes

**Family:** Lophiidae

**Genus:** Lophius

**Species:** americanus



Drawing by Richard Ellis

The family Lophiidae or as they are more commonly known, the monkfishes, are a family of anglerfishes that includes 25 species distributed among four genera (*Sladenia*, *Lophiodes*, *Lophiomus*, and *Lophius*). Starting this month I will be focusing predominately upon the monkfish that is native to our Western Atlantic waters; The American Goosefish (*Lophius americanus*).



**Description:**

As the fish's common names of allmouth and headfish imply, the American goosefish is a distinctively proportioned fish whose body is composed of a huge, gaping mouth attached to a muscular tail. The goosefish body plan has been likened to that of a grotesquely overgrown tadpole.

Both jaws of the colossal mouth are armed with slender curved teeth – all alike in form, but of various sizes. These very sharp and spike-like teeth all point inward towards the gullet.

The top of the head bears three stiff slender spines, hardly thicker than bristles – the first standing close behind the tip of the snout, the second a little in front of the eyes, and the third on the nape of the neck. The fish's green eyes are also situated on the top of its head and are focused upwards.

The First and second spines are moveable, with the first spine bearing an irregular leaf-like flap that the goosefish uses as a lure, casting it to attract prey within striking distance of its spike-filled maw. When the moment comes to strike the prey, the goosefish can suddenly thrust itself upward and forward with the aid of its pelvic fins braced against the sea floor.

The goosefish possesses a row of fleshy flaps running around the margin of its head and most prominently around the lower edge of the jaw, with smaller tabs that fringe the sides of their trunk running back to the base of their tails.

They are reported to “walk” across the sea floor using their uniquely modified pelvic fins.

In the course of my research of the American goosefish I contacted American Littoral Society consulting marine biologist and Director of Sandy Hook's Ocean Institute, Dave Grant.

In an e-mailed response Dave reported that: “On occasion I have received phone calls about poor-man’s lobster and exactly what it might be. The most memorable was from a Rabbi in Camden County, New Jersey. I assured him that the monkfish was most assuredly a fish. Not completely satisfied with that, the Rabbi reminded me that in order to be kosher, a “fish” must have gills, fins and scales. At this point I balked since there are some fish that do not have scales, and never having handled a live specimen, I could not be certain this fish met all three criteria. I asked him to give me time to research it, and dug out the old standby: Fishes of the Gulf of Maine. Sure enough, Bigelow and Schroeder’s description reads: “The skin is scaleless, very smooth and slippery to the touch.” Although I promised that he could be certain the poor-man’s lobster is a fish, he thanked me – but with an air of uncertainty, and said he needed to consult with his committee.

A week later I received a courtesy call from the Rabbi, thanking me again; but explaining that after considerable deliberation, it was decided that despite my assurances, they could not recognize old Lophius as acceptable kosher fare.” – Thanks Dave.

In Europe and North America, the texture of the tail meat of fish of the genus Lophius, is sometimes compared to lobster tail and has been recently been marketed as the "poor man's lobster" by some wise fishmongers.

According to Seafood Watch, monkfish is currently on the list of fish that American consumers who are sustainability minded should avoid. The liver of goosefishes, known as ankimo, is considered a delicacy in Japan.



**Color:**

Goosefish are described as being colored chocolate brown above and various and finely mottled with pale and dark. The whole lower surface of this mostly benthic fish is white or dirty white. Very small goosefish are described as mottled and speckled with green and brown.

The American goosefish differs from its cousin, the European monkfish (*Lophius piscatorius*), in that the European species is reported to possess the ability to match both its color and color pattern closely to the sand and gravel on which it lies.

**Size:**

Adults run from two to four feet long and can weigh up to 50 lbs, with heavier individuals historically recorded as being captured.

**Range:**

*Lophius americanus* ranges the Eastern coast of North America from the Southern Grand Banks of Newfoundland, South to North Carolina and sporadically to Northern Florida.

Two species, *Lophius piscatorius* and *Lophius budegassa* are found in North-Western Europe and referred to as monkfish, with *L. piscatorius* by far the most common species around the British Isles and of major fishery interest there.

Goosefish have been observed inhabiting depths that range from the tide-line out to at least 365 fathoms (2,190 ft.).



**Habits:**

Goosefish adults for the most part are benthic fishes that hold close to the sea floor. Often they will partially bury their bodies in sandy or rocky substrate, or excavate small pits or burrows from which they ambush their prey.

The goosefish will eat almost anything. It is known to have swallowed wooden buoys attached to lobster traps, and there have been multiple reports of persons hauling up an anchor that had an aggressive goosefish attached. The 16<sup>th</sup> century French ichthyologist, Guillaume Rondelet tells of finding an anglerfish along the shore holding a fox fast by the leg. It has also been reported that monkfish have attacked diver's fins, and another report has a monkfish attacking a diver who knelt upon the sea floor. This highly aggressive monkfish was reported to have stayed attached to his shocked prey all the way to the surface, where he was pried off the hapless diver with a gaff.

The following fish species have been recorded from the stomachs of captured goosefish; spiny dogfish, various species of skate, eels, sand-lance, herring, alewife, menhaden, smelts, mackerel, weakfish, cunner, tautog, seabass, butterfish, puffers, various sculpins, sea ravens, sea robins, silver hake, tomcod, cod, haddock, hake, witch flounder, American dab, yellow-tail flounder, winter flounder, and many other unnamed species of flatfish, as well as its own kind.

Goosefish are also known to consume invertebrates such as; lobsters, crabs of several species, hermit crabs, sea snails, squid, annelid worms, shellfish, starfish, and sand dollars.

As its common name implies, the goosefish will sometimes venture to the surface or near-surface to forage on school fishes, resting or diving sea birds and waterfowl. They have been known to capture and consume sea birds such as; cormorants, gulls, widgeon, scoters, loons, guillemots, razor-billed auks, grebes, and other diving fowl such as scaup ducks and mergansers. One trawled goosefish's stomach was said to contain seven wild ducks.

Normally goosefish are found inhabiting the benthos, but occasionally they will appear on the surface, sometimes many fathoms from the sea floor. Many fishermen believe that the appearance of the angler upon the surface heralds the approach of a storm. According to D.H. Storer, a saying among old-time Massachusetts fishermen is, "When you catch a goosefish look out for an easterly storm."

### **Reproduction:**

Goosefish spawn throughout their range in spring, summer, and early autumn, according to latitude, and through a long season. Eggs and larvae have been taken near Cape Lookout, NC in March and April, in May off Cape Hatteras; and as early as May at Woods Hole, MA.

*Lophius americanus* spawns indifferently in shoal water or deep. It differs in this respect with its European relative which distinctly moves offshore and down-slope towards the 1,000 fathom contour for the purposes of spawning.

Goosefish eggs are shed in ribbon-like veils of mucus, often 2-3 feet wide and 25 to 36 feet long and containing over 1 million individual eggs.

### **Lophius Links:** (Learn more about the angler and watch him in action)

<http://www.nmfs.noaa.gov/fishwatch/species/monkfish.htm>

<http://www.nefsc.noaa.gov/read/popdy/monkfish/>

<http://www.nefsc.noaa.gov/sos/spsyn/og/goose/>

[http://www.nefsc.noaa.gov/read/popdy/monkfish/Survey2004/frequent\\_questions.html](http://www.nefsc.noaa.gov/read/popdy/monkfish/Survey2004/frequent_questions.html)

[http://www.montereybayaquarium.org/cr/SeafoodWatch/web/sfw\\_factsheet.aspx?gid=13](http://www.montereybayaquarium.org/cr/SeafoodWatch/web/sfw_factsheet.aspx?gid=13)

<http://www.youtube.com/watch?v=EqJzuc9pE00>

<http://www.youtube.com/watch?v=RwyyzORftS0>

<http://www.youtube.com/watch?v=2wug3SZIJ3M>

<http://www.youtube.com/watch?v=ennupEbKQJs>

<http://www.youtube.com/watch?v=DZJFpqAllcU&feature=related>

<http://www.youtube.com/watch?v=VV0IkCsERNE>

### **References:**

This article draws freely from Henry Bigelow and William Schroeder's "Fishes of the Gulf of Maine", fishery bulletin 74, Vol. 53 1953, and from Bernard Ludwig Gordon's, "The Secret Lives Of Fishes" 1977 Grosset and Dunlap publishers, New York, NY. Two Books that any self proclaimed fish lover must have on their bookshelf.