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First Capture of a Wreckfish, *Polyprion americanus*, from the Gulf of Mexico

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SHORT PAPERS AND NOTES

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FIRST CAPTURE OF A WRECKFISH, *POLYPRION AMERICANUS*, FROM THE GULF OF MEXICO.—On 29 May 2006, Doug Mallonee, a fisherman out of Alabama, caught a wreckfish, *Polyprion americanus* (Bloch and Schneider, 1801), the first taken from the Gulf of Mexico.

The wreckfish, *Polyprion americanus*, is globally distributed in temperate rocky-bottom habitats on insular and continental slopes. Pelagic juveniles are widely dispersed (Sedberry et al., 1998); however, demersal phases (>60 cm total length) are narrowly distributed where preferred depth and bottom type are found. Wreckfish are known from Grand Banks, Newfoundland, to the Florida Straits and then from southern Brazil to the Valdes Peninsula, Argentina. This broad range in the western North Atlantic includes Bermuda but there are no records from tropical waters (Sedberry, 2002). In the eastern North Atlantic, wreckfish are found from Norway to the Cape of Good Hope, including the Mediterranean and the mid-Atlantic ridge and associated islands (e.g., Azores). *Polyprion* also occurs in the southwestern Pacific (Australia, New Zealand) and southern Indian Ocean; however, because of conflicting taxonomic treatments, it is unclear if *P. americanus* actually occurs in those waters (Heemstra, 1986; Roberts, 1986; Ball et al., 2000; Sedberry, 2002). Pelagic juveniles are very common in the surface waters of the eastern North Atlantic, but rare in the western North Atlantic. No specimen of a wreckfish has ever been captured from the Gulf of Mexico or the Caribbean (Sedberry, 2002) and the wreckfish is not included in the recent monograph on Gulf of Mexico fishes by McEachran and Fechtelm (2005). However, Sulak et al. (2007) reported a video record of a specimen from a *Lophelia pertusa* coral substrate on the continental slope in the northern Gulf of Mexico.

Wreckfish is a large species, and demersal adults in the western North Atlantic are known only from rocky-bottom and coral pinnacles on the Blake Plateau off South Carolina and Georgia, the Great and Little Bahama banks, and the Straits of Florida off Miami, in depths from 450 to 600 m (Sedberry et al., 1994, 1999; Sedberry, 2002). Spawning occurs on the Blake Plateau, primarily in February and March (Sedberry et al., 2006) and is believed to also occur on the mid-Atlantic ridge around associated

islands and banks in the proper depth (Sedberry et al., 1999). Although large demersal fish have a limited distribution in the western Atlantic, pelagic juveniles are found north of Cape Hatteras, and into Canadian waters, and are abundant in the eastern North Atlantic. Juvenile wreckfish live at the surface to a length of at least 50 cm, where they associate with floating objects (Roberts, 1989; Sedberry et al., 1998). Wreckfish are recruited to the Blake Plateau at age four, which corresponds to a mean total length of 68 cm (Sedberry et al., 1999). Wreckfish smaller than 65 cm total length have not been observed in fishery landings, by research vessel, or from submersible on the Blake Plateau, and fish less than 85 cm are very rare there (Sedberry et al., 1999).

A single genetic stock of North Atlantic wreckfish extends from the documented spawning grounds on the Blake Plateau to the Azores and Madeira archipelagos and Mediterranean Sea (Ball et al., 2000). Mechanisms for maintaining gene flow, and the patterns of recruitment of juveniles and adults are poorly understood, but some active adult migration or drifting of pelagic juvenile phases must be involved (Ball et al., 2000).

The fishery for wreckfish in the southeastern United States developed in the mid-1980s, and the species formerly had been considered rare in the western North Atlantic (Robins and Ray 1986). Management measures in the United States now include a total allowable catch, individual transferable quotas, gear restrictions (no longlines) and a spawning season closure of the fishery. The management plan assumed a single stock of wreckfish on the Blake Plateau, and put the species under the jurisdiction of the South Atlantic Fishery Management Council, which includes it in a reef fish management unit. The plan assumes no wreckfish occur in the Gulf of Mexico, and the Gulf of Mexico Fishery Management Council has no management plan for wreckfish.

If a large population of wreckfish occurs in the Gulf of Mexico, this occurrence should be documented and incorporated into management plans. This species has a limited habitat niche (steep vertical relief), which may increase vulnerability to fishing pressure; commercial extinction has occurred (in Bermuda) when a population was discovered and fished without regulation (Sedberry et al., 1999). During the first 3 yr of the Blake Plateau



Fig. 1. First captured wreckfish, *Polyprion americanus*, from the Gulf of Mexico. Note diagnostic ridge through middle of the opercle, and light caudal margin.

fishery, it was unregulated and the fleet and catches grew rapidly, resulting in a temporary closure. If fishable populations are discovered in the Gulf of Mexico, regulations should be established to prevent overcapitalization, overfishing, and collapse of the stock, as happened in Bermuda.

The specimen reported herein was a large, gravid female, 31.12 kg (68.6 pounds). It was taken approximately 129 km (80 miles) south of Dauphin Island, AL, in 362 m (1,188 feet). The specimen was taken with a squid bait.

Morphometrics are included in Table 1.

The diagnostic characters of the species are the opercle with a distinctive horizontal ridge ending in a short spine, the caudal with a light margin (Fig. 1), and the morphometrics included in Table 1.

An otolith was removed and sectioned, resulting in an estimated age of 57 yr.

TABLE 1. Morphometrics of wreckfish from the Gulf of Mexico.

Standard length: 1,016 mm
Total length: 1,194 mm
Head length: 381 mm
Eye diameter: 70 mm
Dorsal fin XI: 12
Anal fin III: 1X
P1: 15
P2 I: 5

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