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# Observations on the Size, Pigmentation, Depth, and Range of *Anthias woodsi* Anderson and Heemstra (Pisces: Serranidae; Anthiinae)

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## SHORT PAPERS AND NOTES

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OBSERVATIONS ON THE SIZE, PIGMENTATION, DEPTH, AND RANGE OF *ANTHIAS WOODSI* ANDERSON AND HEEMSTRA (PISCES: SERRANIDAE; ANTHIINAE).—Anderson and Heemstra (1980) described *Anthias woodsi* based on 12 specimens ranging from 103 to 208 mm standard length (SL). They noted, “Specimens in alcohol straw colored; fins pallid to straw colored; no distinctive pigmentation remaining. Live coloration is unknown, but is presumed to be predominantly reddish in view of the depth inhabited and coloration of related species.” The specimens they examined came from “off South Carolina, the east coast of Florida and Dry Tortugas in depths of 256–421 m.” Anderson and Baldwin (2000) provided a key to *Anthias* but included no additional information on the size or pigmentation of *A. woodsi*. Here we provide additional information on the size and pigmentation of *A. woodsi*, confirm its presence in the Florida Keys at shallower depths than previously reported, and extend its range northward to the Baltimore Canyon.

In September 2004 a specimen of *A. woodsi* was caught on a hook baited with squid, at a depth of approximately 185 m “offshore of Key West, Florida.” This fish was 269 mm SL, or 61 mm larger than the largest specimen previously recorded, and was taken at a shallower depth than any previously reported specimen. Its meristics and morphometric proportions generally fall within the range reported by Anderson and Heemstra (1980) (Tables 1, 2; specimen 1). The most striking characteristic of the fish, besides its filamentous caudal rays, is its pigmentation (Fig. 1). The majority of the body, and the fins other than the dorsal and caudal filaments, are pink, although some yellow pigmentation is present on the pelvic filaments. The fish’s dorsal fin is bright yellow with some pink pigmentation present along the spines and rays. Both the upper and lower edges of the caudal fin are yellow. Bright yellow pigmentation starts behind the eye and, with slight interruptions on the operculum, continues to the caudal peduncle. A narrow strip of pink pigmentation originates middorsally in the occipital region and continues posteriorly on either side of the base of the dorsal fin, following the dorsal it continues as a single band to the base of the caudal fin.

Although we were able to examine this specimen, it was returned to the captor at his request. It

was caught on a multiple-hook rig when fishing in a small gully; a tilefish (*Lopholatilus chamaeleonticeps*) and snowy grouper (*Epinephelus niveatus*) were caught on the same line (D. Barton, pers. comm.). Due to the different habitats occupied by these latter species, the collection locality likely consisted of a soft bottom giving way to a rocky drop-off at the edge of the gully. Based on the areas inhabited by other members of *Anthias*, rocky drop-offs or rock outcroppings are a likely habitat for *A. woodsi*.

In 2009 and 2010, three additional specimens were caught off the Florida Keys. Although the exact locations of capture are unknown, we viewed photographs of these specimens and were able to confirm their identification.

On 25 July 2011 “approx. 25” *A. woodsi* were caught in the Baltimore Canyon, at approximately 38°11’3”N 73°50’25”W, at a depth of approximately 260 m (D. Arbeitman, pers. comm.). We examined one of these individuals (Tables 1, 2; specimen 2). We can now extend the known range of *A. woodsi* to include the Dry Tortugas, the waters surrounding the Florida Keys, and the east coast of the United States as far north as the Baltimore Canyon off New Jersey.

**ACKNOWLEDGMENTS.**—We thank Donny Barton for the loan of the specimen of *A. woodsi* he caught in the Florida Keys, and Ted Lund for sending us this specimen. Read Heath supplied us with a photograph of one of two *A. woodsi* he caught off Key West. We especially thank Dave Arbeitman for sending us a specimen he caught in the Baltimore Canyon, and Doug Olander of *Sport Fishing Magazine* for suggesting that anglers contact us upon catching specimens of *A. woodsi*.

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TABLE 1. Comparison of meristic counts of individuals of *Anthias woodsi* used for the original description and new specimens.

	Dorsal rays	Anal rays	Pectoral rays (left)	Tubed lateral-line scales	Caudal peduncle scales	Gill rakers (first arch)
Holotype/paratypes	14–15	7–8	16–18	42–48	21–24	38–40
Specimen 1	14	7	18	44 (right side)	24	37
Specimen 2	14	7	15	44	22	38

TABLE 2. Comparison of select morphometric proportions of individuals of *Anthias woodsi* used for the original description and new specimens. Standard lengths are in millimeters; other measurements are in thousandths of standard length.

Character	Holotype/paratypes	Specimen 1	Specimen 2
Standard length	103–208	269	213
Head length	359–391	357	394
Snout length	80–105	85	111
Orbit diameter	119–137	115	122
Postorbital length of head	156–167	167	172
Upper jaw length	165–189	174	168
Maxilla width	63–72	59	72
Interorbital width	72–87	93	86
Body depth	367–414	360	357
Predorsal distance	329–363	340	385
Preanal distance	664–744	643	634
Caudal peduncle length	213–239	234	235
Caudal peduncle depth	119–131	133	123
Pectoral fin length	314–346	315	306
Pelvic fin length	273–ca. 313	413	348
Anal fin length	265–280	268	288
Upper caudal fin lobe length	ca. 487–ca. 715	903	803
Lower caudal fin lobe length	ca. 439–ca. 623	940	771

Fig. 1. One of two *Anthias woodsi* caught by Read Heath at a depth of 212 m off Key West, FL.