

years old. Hatched from eggs of wild fish, at St. Johnsbury, Vt.”

Length of specimen used from outline: 12.25 inches [311 mm]; specimen apparently used for color, 13.75 inches [349 mm] long. Length as illustrated, 9.5 inches [241 mm].

Media: watercolor, gouache, ink, some lead pencil.

Remarks: DFSA.

P04071–Plate 17 C

Salvelinus alpinus (Linnaeus)

Arctic char, Family Salmonidae

Illustration apparently not published previously. Name on illustration, *Salvelinus marstoni* [Garman = *S. alpinus*].

Date illustrated: outline drawn 12 Nov. 1904, based on one specimen; color based on another specimen; illustration finished 16 Nov. 1904. Male past breeding. Fish were from U.S. fish hatchery, St. Johnsbury, Vt., transferred to Nashua, N.H., where painting was done.

Length of specimen used for outline: 14.5 inches [368 mm]; male specimen used for color, 15.2 inches [386 mm]; length as illustrated, 9.5 inches [241 mm].

Media: watercolor, gouache, ink, some lead pencil.

Remarks: DFSA.

P04072–Plate 17 D

Salvelinus alpinus (Linnaeus)

Arctic char, Family Salmonidae

Illustration apparently not published previously. Name on illustration, *Salvelinus marstoni* [Garman = *S. alpinus*].

Date illustrated: outline drawn 29 Nov. 1904, based on one specimen, color based on another specimen, finished 1 Dec. 1904. Female past breeding. Fish were from U.S. fish hatchery, [St. Johnsbury, Vt.] transferred to Nashua, N.H., where painting was done.

Length of specimen used for outline: 15.2 inches [386 mm]; female specimen used for color, 13 inches [330 mm]; length as illustrated, 9.5 inches [241 mm].

Media: Watercolor, gouache, ink, some lead pencil.

Remarks: DFSA.

P04073–Plate 18 A

Salvelinus fontinalis (Mitchell)

Brook trout, Family Salmonidae

Illustration first published as *Salvelinus fontinalis* by Kendall (1918:plate 42, female).

Date illustrated: unknown; probably 1904 based on other Rangeley Lakes illustrations; disposition of original illustration unknown.

Length of specimen: 16.5 inches [419 mm]; length as illustrated, unknown, but probably about nine inches [229 mm], in keeping with other CBH Rangeley Lakes illustrations.

Media: probably watercolor, gouache.

Remarks: CBH illustrated a male of this species in 1910, probably based on a specimen from California. The painting, which is framed, is in a CDFG office, Sacramento. It was first published as the frontispiece, unassociated with an article, in a 1917 issue of California Fish and Game, vol. 3, no. 1.

P04163–Plate 14 D

Decapterus punctatus (Cuvier)

Round scad, Family Carangidae

Illustration first published as *Decapterus punctatus* by Evermann and Marsh (1900:plate 8).

Date illustrated: 10 Oct. 1896, based on dead specimen from Woods Hole, Mass.

Length of specimen: 5.69 inches [about 144 mm]; length as illustrated, 5.75 inches [146 mm].

Media: watercolor, white gouache, a little lead pencil and ink.

Remarks: Previously framed.

P04272–Plate 6 C

Neoclinus bryope (Jordan and Snyder)

Family Chaenopsidae

Illustration first published as *Zacalles bryope* by Jordan and Snyder (1902b:fig. 3).

Date illustrated: after summer of 1900 (when collected) and before 26 Sept. 1902 (when published).

Length of specimen: 2.75 inches [about 70 mm]; length as illustrated, 16 inches [about 406 mm].

Media: inked lines and stipples.

Remarks: CBH figured his charge as, “2” × 16” [= 32 square inches, @ 0.50 =] \$16.00.”

P04361–Plate 9 J

Sicyopterus stimpsoni (Gill)

Family Gobiidae

Illustration first published as *Vitraria clarescens* by Jordan and Evermann (1905: black and white plate 60), based on holotype, USNM 50655.

Date illustrated: between the summer of 1901 (when collected) and 29 July 1905 (when published).

Length of holotype: about 1.2 inches [about 30.5 mm]; length as illustrated, 16.5 inches [419 mm].

Media: inkwash and white gouache.

Remarks: This figure was reproduced from the published figure in Jordan and Evermann (1905: black and white plate 60). The original figure is present in the USNM illustration files.

P04503–Plate 8 D

Upeneus arge Jordan and Evermann

Family Mullidae

Illustration first published as *Upeneus arge* by Jordan and Evermann (1905: black and white plate 39), who, we believe, erroneously indicated that it was based on the “type” [= holotype], USNM 50667, Honolulu, Hawaii

(see discussion below on length of specimen), which was given the field number 02999.

Date illustrated: between summer of 1901 (when collected) and 29 July 1905 (when published).

Length of specimen: Jordan and Evermann (1903:188) wrote that the type was 8.5 inches long. Handwriting (B. W. Evermann's?) on the margin of the illustration includes, in order, the species name, "type" [which someone has crossed out], "Honolulu," "10.25," and [a few illegible marks]". The only other information on the illustration is a label in someone else's handwriting stating "type" number as "3954, Field Col[lection?]. Mus. [which Jordan and Evermann, 1903:188, indicated was the final disposition of a cotype 10.25 inches long, with the field number 03795]. Based on interpretation of CBH's undenominated scale line on the illustration as representing 0.5 inch (which it represents in many of his illustrations), we calculated that the specimen, which was illustrated as 9 inches long, to be 10.28 inches long, well within a reasonable margin of error. We conclude that Jordan and Evermann (1905) were in error in indicating that this illustration was based on the holotype.

Media: inkwash, gouache, and lead pencil.

P04554–Plate 6 A

Enneapterygius theostomus (Jordan and Snyder)

Family Tripterygiidae

Illustration first published as *Tripterygion theostoma* by Jordan and Snyder (1902b:fig. 1).

Date illustrated: after summer of 1900 (when collected) and before 26 Sept. 1902 (when published).

Length of specimen: 2.55 inches [about 65 mm]; length as illustrated, 11 inches [about 280 mm].

Media: inked lines and stipples.

P04556–Plate 6 B

Springerichthys bapturnus (Jordan & Snyder)

Family Tripterygiidae

Illustration first published as *Tripergion [Tripterygion] bapturnum* by Jordan and Snyder (1902:fig. 2), based on the holotype, CAS-SU 7066.

Date illustrated: after summer of 1900 (when collected) and before 26 Sept. 1902 (when published).

Length of specimen: 2 inches [50 mm]; length as illustrated, 13 inches [about 330 mm].

Media: inked lines and stipples; fine white gouache used to interrupt inked lines of fin rays and to indicate segmented fin-rays.

P04925–Plate 25 E

Thalassoma duperrey (Quoy & Gaimard)

Family Labridae

Illustration first published as *Thalassoma duperrey* by Jordan and Evermann (1905: color plate 35).

Date illustrated: from a live or fresh specimen, summer 1901.

Length of specimen: 6.75 inches [about 171 mm]; length as illustrated, 7 inches [178 mm].

Media: oil.

P05171–Plate 14 F

Sander vitreus (Mitchill)

Walleye, Family Percidae

Illustration apparently not published previously.

Date illustrated: 1905, apparently from life or a fresh specimen, Georgian Bay, Ontario. Indicated as collected by CBH.

Length of specimen: 18.88 inches [479 mm]; length as illustrated, 8 inches [203 mm].

Media: watercolor and gouache.

Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse side of illustration (see discussion of illustrations drawn for Seton).

P05663–Plate 4 E

Scuticaria tigrina (Lesson)

Tiger reef eel, Family Muraenidae

Illustration first published as *Scuticaria tigrina* by Jordan and Evermann (1905: black and white plate 22).

Date illustrated: between summer of 1901, when collected, and 10 Nov. 1902, when noted as having been received from D. S. Jordan (see remarks under P11719).

Length of specimen: 40 inches (about 1.02 m); length as illustrated, 24 inches [588 mm], includes curvature.

Media: Inkwash and a little white gouache.

Remarks: CBH figured his charge: " $\frac{7}{8}$ " \times 24" [= 21 square inches, at \$0.50 per square inch =] \$10.50"

P05890–Plate 24 B

Scomber scombrus (Linnaeus)

Atlantic mackerel, Family Scombridae

Apparently not published previously.

Date illustrated: drawn from life, 15 Oct. 1896, Woods Hole, Mass.

Length of specimen: unknown; length as illustrated, 9.25 inches [about 235 mm].

Media: watercolor and gouache.

Remarks: Previously framed.

P05934–Plate 11 C

Porocottus allisi (Jordan and Starks)

Family Cottidae

Illustration first published as *Crossias allisi* by Jordan and Starks (1904:fig. 28), probably based on holotype, CAS-SU 7711

Date illustrated: probably early 1903 (see P11241, date illustrated).

Length of holotype published as 77 mm (length about 73 mm, based on scale line accompanying illustration; paratypes all indicated as 68 mm or shorter; see also P11241, length of specimen); length as illustrated, 12 inches [about 305 mm].

Media: inkwash, gouache, and lead pencil.

Remarks: CBH figured his charge as: " $2\frac{7}{8}'' \times 12'' = 34.5$ sq. [$@ 0.50$] = \$17.25."

P06626–Plate 2 C

Gila bicolor (Girard)

Tui chub, Family Cyprinidae

Illustration first published as *Rutilus columbianus* by Snyder (1908:fig. 4, the holotype, USNM 55595).

Date illustrated: between 20 July 1904 (based on date of collection) and before 28 Sept. 1908 (based on date of publication).

Length of specimen: 136 mm TL (we remeasured at 132 mm, but part of caudal fin is missing); length as illustrated, about 191 mm.

Media: inkwash, gouache, some lead pencil.

P06627–Plate 2 D

Gila bicolor (Girard)

Tui chub, Family Cyprinidae

Illustration first published as *Rutilus oregonensis* by Snyder (1908:fig. 3, the holotype, USNM 55596).

Date illustrated: after July 1904 (based on date of collection) and before 28 Sept. 1908 (based on date of publication).

Length of specimen: 202 TL (we remeasured and agree); length as illustrated, about 197 mm.

Media: inkwash, gouache, some pencil.

P06885–Plate 12 D

Neomerinthe beanorum (Evermann and Marsh)

Family Scorpaenidae

Illustration first published as *Pontinus beanorum* by Evermann and Marsh (1900:fig. 85), based on the holotype, USNM 49534.

Date illustrated: between 13 Jan. 1899 (when collected) and 11 Sept. 1900 (when B. W. Evermann approved the illustration; as entered on illustration).

Length of specimen: 5.5 inches [about 140 mm]; length as illustrated, 10.81 inches [about 275 mm].

Media: ink stipples.

P07159–Plate 21 E

Epinephelus itajara (Lichtenstein)

Goliath grouper, Family Serranidae

Illustration not previously published. Label on illustration reads, "*Promicrops guttatus*, juv.," an old, erroneous identification, but clearly this is a juvenile of *E. itajara*.

Date illustrated: unknown, but undoubtedly done in Key West, Fla., 1897, based on other CBH Key West illustrations. Other evidence is that the illustration shows stains of having been framed, which we found only on illustrations of fishes done at Key West and Woods Hole, and the species does not occur at Woods Hole, but does occur at Key West (see also remarks, below).

Length of specimen unknown; length as illustrated, 9.12 inches [231 mm].

Media: watercolor and inkwash.

Remarks: Previously framed. Although CBH did not sign and date any of his colored paintings done in Key West, this illustration is unusual in not bearing a Bureau of Fisheries label attributing it to CBH or including a date and place where the specimen was obtained. A handwritten number, "1223 color" on the reverse of the illustration corresponds to a number for this species in the U.S. Fish Commission Tag Number Ledger, which states that CBH collected this specimen, and the only place where CBH worked and where the species occurs was Key West.

P07188–Plate 12 C

Pteropsaron incisum Gilbert

Family Percophidae

Illustration first published as *Pteropsaron incisum*, by Gilbert (1905:plate 87), who indicated it was based on the holotype, but it is actually based on a paratype, USNM 51659.

Date illustrated: between Mar.–Aug. 1902 and 12 Feb. 1903 (see P01735, date illustrated).

Length of specimen: 2 inches [about 50 mm] based on scale line on illustration; length as illustrated, about 305 mm.

Media: inkwash, white gouache, and lead pencil.

P07220–Plate 11 D

Pseudoblennius zonostigma Jordan and Starks

Family Cottidae

Illustration first published as *Pseudoblennius zonostigma* by Jordan and Starks (1904:fig. 35), based on either the holotype, CAS SU 7718, or one of the two paratypes, USNM 50927. See discussion in Length of specimen section (below).

Date illustrated: probably early 1903 (see P11241, date illustrated).

Length of specimen: Jordan and Starks had three specimens. The holotype, CAS-SU 7718, stated as being 105 mm (Jordan almost always used TL), and two paratypes, one, 120 mm, probably also at Stanford, and USNM 50927, which we measured as 108 mm TL. When CBH entered a factor with his scale lines, it was either 0.5 inch [12.7 mm] or 1 inch [25.4 mm]. Using these factors resulted in our finding that the illustration represented a specimen that was either 106.7 mm or 213 mm TL. Although our conversion factor for 0.5 inch places the length of the illustrated specimen slightly closer in length to the USNM specimen than to the holotype, we think that a margin of error makes it impossible to attribute the drawing to either the holotype or USNM paratype (see also P11241, length of specimen); treating the scale as 1 inch indicates a size much larger than any of the three specimens. Length as illustrated, 10.7 inches [about 272 mm].

Media: Inkwash, white gouache, and lead pencil.

Remarks: CBH indicated his charge as: “ $2\frac{3}{8} \times 10\frac{3}{4}$ ” [=] 25.53 sq. in [=] \$12.76.”

P07225–Plate 10 D

Pseudocheilinus evanidus Jordan and Evermann

Family Labridae

Illustration first published as *Pseudocheilinus evanidus* by Jordan and Evermann (1905: black and white plate 43), based on holotype, USNM 50678.

Date illustrated: 1903 (indicated by CBH on label pasted to illustration).

Length of holotype; 3.25 inches [82.6 mm]; length as illustrated, 9.5 inches [241 mm]. Jordan and Evermann (1903:192, 1905:317) did not give the length of the holotype. But in the list of illustrations (Jordan and Evermann (1905:xiv), they gave the length as 3.25 inches, and indicate the specimen was collected by themselves. In both the 1903 and 1905 descriptions, however, they indicate that Mr. Sindo is the collector. The data in the illustration list was apparently taken from CBH’s label, which gives the length and implies that Jordan and Evermann were the collectors. CBH was probably unaware of the information in the descriptions and Jordan and Evermann (1905), considering other errors in their illustration lists, did not read, or did not have, the opportunity to read, proof on their publication.

Media: Inkwash, white gouache, lead pencil.

P07351–Plate 6 H

Pungitius pungitius (Linnaeus)

Ninespine stickleback, Family Gasterosteidae

Unpublished previously, although remark concerning reduction for printing is written on illustration. Name on illustration is *Pygosteus pungitius*.

Date illustrated: 1905.

Length of specimen: 1.83 inches [about 46.5 mm]; length as illustrated, 8 inches [about 203 mm].

Media: Inkwash, a little white gouache, lead pencil.

Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse side of illustration (see discussion of illustrations drawn for Seton).

P07976–Plate 23 A

Urophycis tenuis (Mitchill)

White hake, Family Phycidae

Apparently not published previously.

Date illustrated: drawn from life, 25 Nov. 1896. Woods Hole, Mass.

Length of specimen: 12.12 inches [308 mm]; length as illustrated, 9 inches [229 mm].

Media: watercolor, gouache, ink.

Remarks: Previously framed.

P08158–Plate 1 A

Pimephales promelas (Rafinesque)

Fathead minnow, Family Cyprinidae

Unpublished previously, although remark concerning reduction for printing is written on illustration. Name on illustration is *Pimephales promelas*.

Date illustrated: probably 1905 (see remarks under P03728).

Length of specimen: 2.75 inches [70 mm]; length as illustrated, 8.0 inches [about 203 mm].

Media: inkwash, lead pencil, white gouache highlights.

Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse side of illustration (see discussion of illustrations for Seton).

P08206–Plate 14 B

Caranx hippos (Linnaeus)

Creville jack, Family Carangidae

Illustration first published as *Caranx hippos* by Murdy et al. (1997:plate 23).

Date illustrated: drawn from life 1 Apr. 1897 (erroneously indicated as 1898 on illustration; see footnote under XX001), outline from one specimen and color from another (latter now cataloged as 169929 in the USNM fish collection); Key West, Fla.

Length of specimen: specimen used for outline 12.62 inches [321 mm]; length as illustrated, 9.25 inches [235 mm].

Media: watercolor, gouache, and ink.

Remarks: Previously framed.

P08510–Plate 12 F

Aulotrachichthys prosthemi (Jordan & Fowler)

Family Trachichthyidae

Illustration first published as *Paratrachichthys prosthemi* by Jordan and Fowler (1902:fig. 1), based on holotype, USNM 50575.

Date illustrated: between 16 May 1900 (when collected) and 25 Nov. 1902 (when published).

Length of holotype: 2.4375 inches [61.9 mm]; length as illustrated, 10.125 inches [257 mm].

Media: gouache and some lead pencil.

Remarks: CBH indicated his charge as “ $2\frac{7}{8} \times 10$ ” [= 28.75 square inches @ \$0.50 =] \$14.37.”

P08657–Plate 26 F

Paracirrhites arcatus (Cuvier)

Family Cirrhitidae

Illustration first published as *Paracirrhites arcatus*, by Jordan and Evermann (1905: color plate 69).

Date illustrated: from live specimen, summer of 1901, Honolulu, Hawaii.

Length of specimen: 4.12 inches [105 mm]; length as illustrated, same.

Media: Oil on board.

Remarks: P08657 and P08658 are on the same piece of board. CBH was probably trying to conserve materials.

P08658–Plate 26 E

Cirrhitops fasciatus (Bennett)

Family Cirrhitidae

Illustration first published as *Paracirrhites cinctus* by Jordan and Evermann (1905: color plate 68).
Date illustrated: from live specimen, summer of 1901, Honolulu, Hawaii.
Length of specimen: about 3.8 inches [about 96 mm]; length as illustrated, same.
Media: Oil on board.
Remarks: P08658 and P08657 are on the same piece of board. CBH was probably trying to conserve materials.

P08659–Plate 26 C

Paracirrhites forsteri (Schneider)
Family Cirrhitidae
Illustration first published as *Paracirrhites forsteri* by Jordan and Evermann (1905: color plate 67).
Date illustrated: from life, summer of 1901.
Length of specimen: 7 inches [178 mm]; length as illustrated, 6 inches [153 mm].
Media: Oil on board.

P08697–Plate 11 E

Ocynectes maschalis Jordan and Starks
Family Cottidae
Illustration first published as *Ocynectes maschalis* by Jordan and Starks (1904:fig. 34), probably based on holotype, CAS-SU 7717.
Date illustrated: probably early 1903 (see P11341, date illustrated).
Length of specimen: holotype published as 55 mm, not exceeded by any paratype. Based on scale line accompanying illustration we calculated the length as 53.3 mm, within a small range of error (see also P11241, length of specimen). Length as illustrated, 12 inches (305 mm).
Media: inkwash and white gouache.
Remarks: CBH calculated his charge as: “ $2\frac{1}{2}'' \times 12'' = 30$ sq. in (@ \$0.50 [=] \$15.00.”

P08787–Plate 19 D

Osmerus mordax (Mitchill)
Rainbow smelt, Family Osmeridae
Apparently not published previously.
Date illustrated: backside of illustration, in CBH’s handwriting, “Woods Hole, Mass., Sept. 30, 1896. Taken on sandy or gravel bottom nearly white. Chas. B. Hudson.”
Length of specimen: not provided no scale line included; length as illustrated, 9 inches [229 mm].
Media: watercolor and ink; backside of illustration board bears stamp: Fred A. Schmidt, No. 504 9th Street, Washington, D.C., Artists’ & Draughtmen’s Materials & Stationers.
Remarks: Previously framed.

P08806–Plate 5 E

Ostichthys japonicus (Cuvier)
Family Holocentridae

Illustration first published as *Ostichthys japonicus* by Jordan and Fowler (1902:fig. 2).
Date illustrated: between end of summer 1900 (when collected) and 25 Nov. 1902 (when published).
Length of specimen: 13.25 inches [about 325 mm]; length as illustrated, 10.5 inches [about 267 mm].
Media: inked lines and stipples; fine white gouache used to break ink lines of fin rays into tiny segments.

P08857–Plate 4 B

Oncorhynchus keta (Walbaum)
Chum salmon, Family Salmonidae
Illustration first published as *Oncorhynchus keta* by Jordan and Snyder (1902c:fig. 2).
Date illustrated: between end of summer, 1900 (when collected) and 25 Mar. 1902 (when published).
Length of specimen: unknown; length as illustrated, 11 inches (about 279 mm).
Media: inked lines and stipples.
Remarks: CBH indicated his charge as, “ $2\frac{7}{8}'' \times 11'' [= 31.62$ square inches \times \$0.50] = [\$]15.80.”

P09228–Plate 12 A

Chrionema chryseres Gilbert
Family Percophidae
Illustration first published as *Chrionema chryseres* by Gilbert (1905:plate 85) based on the holotype, USNM 51655.
Date illustrated: between Mar.–Aug. 1902 and 12 Feb. 1903 (see P01735, date illustrated).
Length of holotype: 206 mm; length as illustrated, 308 mm.
Media: inkwash, ink, white gouache, some lead pencil.

P09407–Plate 1 C

Notropis atherinoides (Rafinesque)
Emerald shiner, Family Cyprinidae
Unpublished previously, although remark concerning reduction for printing is written on illustration. Name on illustration is *Notropis atherinoides*.
Date illustrated: 1905.
Length of specimen: 2.78 inches [about 73 mm]; length as illustrated, 8 inches [about 203 mm].
Media: inkwash, lead pencil, white gouache highlights.
Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse side of illustration (see discussion of illustrations drawn for Seton).

P09413–Plate 1 F

Notropis bifrenatus (Cope)
Bridle shiner, Family Cyprinidae
Unpublished previously, although remark concerning reduction for printing is written on illustration. Name on illustration is *Notropis cayuga*.
Date illustrated: probably 1905 (see remarks under P03728).

Length of specimen: 1.81 inches [about 46 mm]; length as illustrated, 8 inches [about 203 mm].

Media: inkwash, lead pencil, white gouache highlights.

Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse (see discussion of illustrations drawn for Seton).

P09436–Plate 2 A

Notropis blennioides (Girard)

River shiner, Family Cyprinidae

Unpublished previously, although remark concerning reduction for printing is written on illustration. Name on illustration is *Notropis jejunus*.

Date illustrated: 1905.

Length of specimen: 2.31 inches [about 58.7 mm]; length as illustrated, 8 inches [about 203 mm].

Media: inkwash, lead pencil, white gouache.

Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse side of illustration (see discussion of illustrations drawn for Seton).

P09474–Plate 10 E

Halichoeres bleekeri Steindachner and Döderlein

Family Labridae

Illustration first published as *Halichoeres tremebundus* by Jordan and Snyder (1902a:fig. 8).

Date illustrated: between late 1901 and 18 Jan. 1902 (see P03497, date illustrated).

Length of specimen: uncertain, about 3.85 inches [97.8 mm] if scale line accompanying figure represents one inch (CBH gave inch measurements in those instances where he indicated what his scale lines represented). Illustration could represent holotype (CAS-SU 6853), which Jordan and Snyder stated was about 100 mm. Length as illustrated, 10 inches (254 mm).

Media: inked lines and stipples.

Remarks: CBH indicated his charge as: “2¹/₈” × 10” [= 21.25 inches @ \$0.50 =] \$10.62.”

P09548–Plate 5 B

Myripristis amaena (Castelnau)

Family Holocentridae

Illustration first published as *Myripristis argyromus* by Jordan and Evermann (1905:black and white plate 27). The illustration is purportedly based on the type (= holotype; USNM 50631, 9.5 inches long, from Hilo, Hawaii), and the caption to plate 27 also indicates it portrays the type. CBH's label on the drawing, however, indicates it is based on a different specimen (a cotype = paratype, 9 inches long, from Honolulu). To complicate matters, in the list of black and white plates (Jordan and Evermann, 1905:xiii), plate 27 is indicated as based on the holotype, 9 inches long, collected at Honolulu by Jordan and Evermann in 1902 [sic]. It can be determined from information in Jordan and Evermann (1903), which includes the original

description of *M. argyromus*, that the specimen CBH painted was collected by Jordan and Evermann in Honolulu in 1901.

Date illustrated: either this specimen, or P09557 (both were collected in 1901 in Hawaii) was completed about 21 Apr. 1903, according to CBH letter of that date to D. S. Jordan¹⁵⁰; otherwise (for either specimen), between summer of 1901 (when collected) and 29 July 1905 (when published).

Length of specimen: 9 inches [about 229 mm]; length as illustrated: 9.5 inches [about 241 mm]

Media: inkwash and white gouache.

P09557–Plate 5 A

Myripristis amaena (Castelnau)

Family Holocentridae

Illustration first published as *Myripristis symmetricus* by Jordan and Evermann (1905: black and white plate 26), based on the holotype, USNM 50632.

Date illustrated: see date illustrated under P09548.

Length of specimen: 5.5 inches [about 140 mm]; length as illustrated, 8.25 inches [about 210 mm].

Media: inkwash and white gouache.

P09660–Plate 22 A

Mycteroperca bonaci (Poey)

Black grouper, Family Serranidae

Illustration apparently not published previously.

Date illustrated: “Drawn from life,” Key West, Fla., 21 Jan. 1897.

Length of specimen: 27.5 inches [about 700 mm]; length as illustrated, 9.24 inches [about 235 mm].

Media: watercolor and gouache.

Remarks: Outline [measurement, details] based on one specimen and color taken from two others. This appears to indicate that the specimen from which the outline was taken was not alive and, perhaps, that the two specimens from which the color was taken, were held in aquaria. We suspect that making measurements and fin-ray counts on a live specimen about 700 mm in length would present considerable difficulty. Illustration shows evidence of having been framed.

P09663–Plate 4 A

Mycteroperca venenosa (Linnaeus)

Yellowfin grouper, Family Serranidae

Illustration originally published as *Mycteroperca bowersi* by Evermann and Marsh (1900:fig. 45), based on holotype, USNM 49530.

Date illustrated: between 10 Feb. 1899 (when collected) and 15 Sept. 1900 (when B. W. Evermann approved illustration).

¹⁵⁰“I have finished Myripristis and will send it to Dr. Evermann tomorrow morning.” Stanford University Libraries, Department of Special Collections, SC 058, D. S. Jordan, Series I-A, Box 36, Folder 357.

Length of holotype: 21.5 inches [546 mm]; length as illustrated, 9.25 inches [235 mm].
Media: inked lines and stipples.

P09681–Plate 21 F

Mycteroperca venenosa (Linnaeus)
Yellowfin grouper, Family Serranidae
Illustration apparently not published previously.
Date illustrated: 27 Jan. 1897, Key West, Fla. Outline indicated from one specimen; possibly another used for color.
Length of specimen: 22.62 inches [575 mm]; length as illustrated, 9.5 inches [241 mm].
Media: watercolor, a little gouache and lead pencil.
Remarks: Previously framed. DFSA.

P10047–Plate 7 B

Draconetta xenica (Jordan and Fowler)
Family Draconettidae
Illustration first published as *Draconetta hawaiiensis* by Gilbert (1905:plate 91), based on holotype, USNM 51633.
Date illustrated: probably between early summer and mid Oct. 1902 (see P02328, date illustrated).
Length of holotype: 2 inches [50.8 mm]; length as illustrated, 10 inches (254 mm).
Media: inkwash, lead pencil, white gouache highlights.
Remarks: CBH indicated his charge as “1¹/₈” × 10” [= 11.25 square inches × \$0.50 =] \$5.62.”

P10048–Plate 7 A

Draconetta xenica Jordan and Fowler
Family Draconettidae
Illustration first published as *Draconetta xenica* by Jordan and Fowler (1903a:fig. 1), based on the holotype, USNM 50816.
Date illustrated probably between early summer and mid Oct. 1902 (see P02328).
Length of holotype: “2 9/16 inches,” according to Jordan and Fowler (1903a:940) or “2¹/₂ inches,” according to Jordan and Fowler (1903a:941); therefore about 63.5 mm; length as illustrated, 14 inches [about 356 mm].
Media: inkwash, lead pencil, white gouache.
Remarks: CBH indicated his charge as “1⁷/₈” × 14” [= 26.25 square inches =] \$12.25.” Inasmuch as he was receiving \$0.50 per square inch, he should have charged \$13.12.

P10343–Plate 6 F

Emblemaria pandionis (Evermann & Marsh)
Sailfin blenny, Family Chaenopsidae
Illustration first published as *Emblemaria pandionis* by Evermann and Marsh (1900:fig. 104), based on the holotype, USNM 49535.
Date illustrated: between 08 Feb. 1899 (when collected) and 29 Dec. 1900 (when published).

Length of specimen: 1.5 inches [38.1 mm]; length as illustrated, 8.75 inches [about 222 mm].
Media: inked stipples.

P10448–Plate 21 A

Epinephelus adscensionis (Osbeck)
Rock hind, Family Serranidae
Illustration first published as *Epinephelus adscensionis* by Evermann and Marsh (1900:plate 11).
Date illustrated: 1897, Key West, Fla.
Length of specimen: 13.5 inches [343 mm]; length as illustrated, 9.44 inches [240 mm].
Media: watercolor and a little gouache.
Remarks: Previously framed. DFSA.

P10475–Plate 21 B

Epinephelus guttatus (Linnaeus)
Red hind, Family Serranidae
Illustration first published as *Epinephelus maculosus* by Evermann and Marsh (1900:plate 13); text, however, used *Epinephelus guttatus* when listing the species and referring to the plate.
Date illustrated: 1897, Key West, Fla.
Length of specimen: 14.5 inches [368 mm]; length as illustrated, 9.5 inches [241 mm].
Media: watercolor and a little gouache.
Remarks: Previously framed. DFSA.

P10482–Plate 21 D

Epinephelus morio (Valenciennes)
Red grouper, Family Serranidae
Illustration first published as *Epinephelus morio* by Evermann and Marsh (1900:plate 14).
Date illustrated: Drawn from life, 15 Jan 1897, Key West, Fla. Outline based on one specimen, color from another.
Length of specimen used for outline: 17.75 inches [451 mm]; length as illustrated, 9.69 inches [246 mm].
Media: watercolor and a little gouache.
Remarks: Previously framed.

P10567–Plate 9 C

Ernogrammus hexagrammus (Schlegel)
Family Stichaeidae
Illustration first published as *Ernogrammus hexagrammus*, by Jordan and Snyder (1902b:fig. 23).
Date illustrated: between summer of 1900 (when collected) and 26 Sept. 1902 (when published).
Length of specimen: about 4.72 inches [120 mm]; length as illustrated, 16 inches [406 mm].
Media: inked lines and stipples.
Remarks: CBH indicated his charge as: “2⁵/₈” × 16” [= 42 square inches × \$0.50 =] \$21.00.”

P11005–Plate 6 G

Mugil cephalus Linnaeus
Striped mullet, Family Mugilidae

Illustration apparently published here for the first time, although the words “reduce to” without indication of how much is written on front of illustration. Specimen indicated as Stanford Univ. 6223 [= CAS-SU 6223], which was collected in Jan. 1896. Name on illustration: *Mugil rammelsbergi*.

Date illustrated: After 1 Jan. 1896 [when collected], probably after 1901, when CBH first moved to California.

Length of specimen: 7.75 inches [about 197 mm]; length as illustrated, 7.9 inches [about 202 mm]

Media: inkwash and white gouache.

P11040–Plate 1 B

Moxostoma anisurum (Rafinesque)

Silver redhorse, Family Catostomidae

Unpublished previously, although remark concerning reduction for printing is written on illustration.

Date illustrated: 1905. Slough of Mississippi River at Muscatine, La.

Length of specimen: 6.15 inches [about 154 mm]; length as illustrated, 9 inches [about 229 mm].

Media: inkwash and lead pencil.

Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse side of illustration (see discussion of illustrations drawn for Seton).

P11183–Plate 4 D

Pseudobagrus ransonnetii Steindachner

Family Bagridae

Illustration first published as *Fluvidraco ransonnetii* by Jordan and Fowler (1903b:fig. 1).

Date illustrated: Between summer of 1900 (when collected) and 12/5/02 (when “B. A. B.” [= Barton A. Bean¹⁵¹], assistant curator, USNM, approved payment for the illustration. Springer (2001: last paragraph on page 46 et seq.) noted that an author could ask that someone at the museum oversee production of an illustration to accompany a publication scheduled for the Proceedings of the United States National Museum. In the cited example, it was also B. A. Bean who oversaw the preparation of an illustration of a fish.

Length of specimen: unknown; length as illustrated, 9 inches [about 229 mm].

Media: inkwash and a little white gouache on Windsor & Newton’s Watercolour Sketching Boards, “NOT” Surface.

Remarks: CBH indicated his charge: “size 1¾ × 9 = [15.75 × \$0.50] \$7.89.”

¹⁵¹Bean (1860–1947), joined the Smithsonian’s National Museum as a clerk in 1881. He rose to the position of Assistant Curator of Fishes in 1890, which position he held until he retired in 1932. He also worked with the U.S. Fish Commission, which was closely associated with the Smithsonian (information from R. V. Szary, Historical Note in Record Unit 7224, Barton A. Bean Papers, Smithsonian Institution Archives).

P11241–Plate 11 F

Furcina osimae Jordan and Starks

Family Cottidae

Illustration first published as *Furcina osimae* by Jordan and Starks (1904:fig. 33), probably based on holotype, CAS-SU 7716 (see length of specimen).

Date illustrated: probably early 1903, based on letters dated 13 and 27 Mar. and 28 Apr. 1903¹⁵² from David Starr Jordan in California, to CBH in Detroit, Mich. By this time Jordan must have had faith in CBH’s ability as he asked that the drawings be sent directly to B. W. Evermann in Washington [without Jordan’s checking].

Length of specimen: based on CBH’s scale line accompanying the figure, we calculated the length of the illustrated specimen as 75.5 mm TL. Jordan and Starks gave the length of the holotype as 77 mm. The 2% difference between our calculation and the length given by Jordan and Starks is probably within a reasonable range of error; however, as there were several paratypes we are uncertain if the specimen is a paratype or the holotype. Length as illustrated is 12 inches [305 mm]. In a letter dated 25 Mar. 1901¹⁵³, from David Starr Jordan in California, to CBH in Washington, D. C., Jordan stated that he liked to make descriptions and figures from the same specimens. For that reason, we are inclined to believe the illustrated specimen is the holotype.

Media: inkwash and gouache.

Remarks: CBH indicated his charge as: “2⁵/₈” × 12” [=] 31.5 [square inches @ \$0.50 = \$15.75.”

P11561–Plate 8 F

Gobionellus oceanicus (Pallas)

Highfin goby, Family Gobiidae

Illustration first published as *Gobius bayamonensis* by Evermann and Marsh (1900:fig. 90), based on the holotype, USNM 49365 [CBH indicated 49367 on illustration].

Date illustrated: between Jan. 1899, when obtained at a fish market in Puerto Rico, and 11 Sept. 1900, when B. W. Evermann approved payment for, or publication of, illustration (information entered on illustration).

Length of specimen: 9 inches [289 mm]; length as illustrated, 9 inches.

Media: inked lines and stipples.

P11628–Plate 25 D

Gomphosus varius Lacepède

Family Labridae

Illustration first published as *Gomphosus tricolor* by Jordan and Evermann (1905: color plate 36).

Date illustrated: summer of 1901, from live or fresh specimen, Hawaii.

¹⁵²Stanford University Libraries, Department of Special Collections, SC 058, D. S. Jordan, ser. IAA, Box 7, Folder v. 13.

¹⁵³Stanford University Libraries, Department of Special Collections, SC 058, D. S. Jordan, ser. IAA, Box 2, Folder v. 3.

Length of specimen: about 8 inches [about 203 mm]; length as illustrated, 6 inches [about 152 mm].

Media: oil on "Academy Board."

Remarks: DFSA. Published version has intensity of gray-green background considerably decreased. Subsequent to original publication, image appeared on an early 1900's booklet of Hawaiian fishes and repeatedly on postcards, issued during various years by the Waikiki Aquarium.

P11719–Plate 3 C

Gymnomuraena zebra (Shaw)

Zebra moray, Family Muraenidae

Illustration first published as *Echidna zebra* by Jordan and Evermann (1905: black and white plate 20).

Date illustrated: between summer, 1901, when collected, and 10 Nov. 1902 (see remarks, below).

Length of specimen: 23.5 inches [ca. 597 mm]; length as illustrated (specimen is drawn curved on itself), about the same.

Media: inkwash and a little white gouache in eye.

Remarks: DFSA. On the reverse side of illustration is a note that "4 washed paintings of Hawaiian Fishes. By Mr. Hudson rec'd from Dr. Jordan Nov 10, 1902." These refer to this illustration and three other eel species (see P05663, P11787, P11800). CBH figured his charge: "1³/₁₆" × 23¹/₂" [= 27.9 square inches, at \$0.50 per square inch =] \$13.95."

P11787–Plate 3 A

Gymnothorax pictus (Ahl)

Family Muraenidae

Illustration first published as *Gymnothorax pictus* by Jordan and Evermann (1905: black and white plate 19).

Date illustrated: between summer, 1901, when collected, and 10 Nov. 1902, when delivered to D. S. Jordan (see remarks under P11719).

Length of specimen: 27.5 inches [about 699 mm]; length as illustrated, 22.5 inches [about 572 mm], specimen is drawn curved on itself.

Media: inkwash, a little gouache.

Remarks: CBH figured his charge as "1⁹/₁₆" × 22¹/₂ inches" [= 28.4 square inches], for which he claimed \$15.00, or a little more than the \$0.50 per square inch he usually charged.

P11800–Plate 3 B

Gymnothorax flavimarginatus (Ruppell)

Family Muraenidae

Illustration first published as *Gymnothorax thalassopecter* by Jenkins (1903:plate 2; based on holotype, USNM 50619); republished by Jordan and Evermann (1905: black and white plate 17). Mistakenly recataloged as USNM 51073.

Date illustrated: between summer 1901, when collected, and 10 Nov. 1902, when delivered to D. S. Jordan (see remarks under P11719).

Length of specimen: 23 inches [about 584 mm]; length as illustrated, about 11.62 inches [about 295 mm]; specimen drawn curved on itself.

Media: inkwash and gouache.

Remarks: CBH indicate his charge as: "1³/₈" × 21" [= 28.87 square inches @ \$0.50] = \$14.43."

P11829–Plate 20 E

Lutjanus synagris (Linnaeus)

Lane snapper, Family Lutjanidae

Illustration apparently not published previously.

Date illustrated: 4 Mar. 1897, Key West, Fla. Drawn from life. Outline based on one specimen, color based on another.

Length of specimen: 14.5 inches [368 mm]; length as illustrated, 9.3 inches [about 237 mm].

Media: watercolor, considerable gouache.

Remarks: Previously framed. Evermann and Marsh (1900: plate 22) used A. H. Baldwin's color painting of *L. synagris*, done in Puerto Rico, rather than CBH's done in Florida. It is understandable that they preferred a painting of a species from the locality of their research over one from a distant locality. Scientifically, as well as aesthetically, CBH's illustration is superior. Evermann and Marsh, however, used CBH's inked illustration (P15116) of this species, based on what they thought was a different, new Puerto Rican species.

P12848–Plate 2 F

Hiodon alosoides (Rafinesque)

Goldeye, Family Hiodontidae

First published as *Hiodon alosoides* by Coker (1930: fig. 8).

Date illustrated: 1905.

Length of specimen: 7 inches [about 178 mm]; length as illustrated, 8 inches [about 203 mm].

Media: inkwash, white gouache, and lead pencil.

Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse side of illustration (see discussion of illustrations drawn for Seton).

P13124–Plate 5 F

Sargocentron ensifer (Jordan & Evermann)

Family Holocentridae

Illustration first published as *Holocentrus ensifer* by Jordan and Evermann (1905: black and white plate 28). The plate legend indicates the illustration is based on the "type," which Jordan and Evermann (1903:177) designated as USNM 50637, with the field number 03448. A label on the reverse of the illustration, however, indicates that the drawing is based on a specimen (cotype) at the Museum of Comparative Zoology (MCZ) with the U.S. Fish Commission field number 04931. This field number, as are those of all the other type specimens, is included on page 58 in a U.S. Fish Commission catalog

book deposited at USNM.¹⁵⁴ The catalog lists the USNM specimen as being 9 inches long and the MCZ specimen as being 8 inches long (K. Hartel, MCZ, measured the TL of that specimen, which is missing a portion of the caudal fin, as about 7.5 inches). Lengths for all the specimens on the page, including the type and eight cotypes of *H. ensifer* and specimens of other holocentrids, are given in whole or whole plus quarters of an inch. Based on the scale line CBH included with the illustration, we calculated the length of the illustrated specimen to be about 8.27 inches, which we consider within an acceptable range of mechanical error or shrinkage. We conclude that the illustration is based on the MCZ specimen and not the USNM holotype.

Jordan and Evermann (1903:177) gave the length of the USNM holotype as 6 inches, and Jordan and Evermann (1905:xiii), inexplicably gave the length as 6.25 inches, in either case, much shorter than the 9 inches indicated for the specimen in the Fish Commission ledger. At our request, J. T. Williams measured the holotype as having a TL of 225 mm [8.8 inches], very close to the length given in the ledger. USNM has one other specimen of the nine in the type series, USNM 126155 (field number 04929), which was originally part of the defunct Fish Commission collection. Jordan and Evermann (1903:177) give the length of this specimen as 8.75 inches and J. T. Williams measured it as 8.5 inches, again within a reasonable margin of mechanical error or shrinkage.

We presume that the erroneous 6-inch measurements of the two specimens were the result of a printer's error. In the early 1900's, tables, such as that in which Jordan and Evermann (1903:177) listed their specimens and associated data, were probably hand-set from loose type. In the type font in which their table was set, a 6 was merely a 9 upside down. Mistakes were probably common, and would have necessitated careful proofing to correct.

Date illustrated: between summer of 1901 (when collected) and 29 July 1905 (when published).

Media: inkwash, white gouache, lead pencil.

P13132—Plate 5 D

Sargocentron xantherythrum (Jordan and Evermann)

Family Holocentridae

Probably not published previously. Name on label on illustration in unknown handwriting indicates: *Holocentrus ensifer*; *xantherythrus* is written above *ensifer*.

Date illustrated: label indicates 1903.

Length of specimen: 6.25 inches [159 mm]; length as illustrated, 8.25 inches [about 210 mm].

Media: inkwash, white gouache, lead pencil.

P13212—Plate 2 E

Hybognathus nuchalis (Agassiz)

Mississippi silvery minnow, Family Cyprinidae

¹⁵⁴Catalogue of Specimens of Hawaiian and Philippine Fishes, with List of Tag Numbers of the Hawaiian and the Philippine Fishes.

Not published previously, although remark concerning reduction for printing is written on illustration. Name on illustration is *Hybognathus nuchale*.

Date illustrated: 1905.

Length of specimen: 3.33 inches [about 84.6 mm]; length as illustrated, 8 inches [about 203 mm].

Media: inkwash, lead pencil, white gouache.

Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse side of illustration (see discussion of illustrations drawn for Seton).

P13218—Plate 1 E

Macrhybopsis storeriana (Kirtland)

Silver chub, Family Cyprinidae

Not published previously, although remark concerning reduction for printing is written on illustration. Name on illustration *Hybopsis storerianus*.

Date illustrated: 1905.

Length of specimen: 4.6 inches [about 117 mm]; length as illustrated, 8 inches [about 203 mm].

Media: inkwash, lead pencil, white gouache.

Remarks: Initials E. T. S. [Ernest Thompson Seton] on reverse side of illustration (see discussion of illustrations drawn for Seton).

P14692—Plate 10 A

Bodianus perditio (Quoy & Gaimard)

Family Labridae

First published as *Lepidaplois perditio* by Jordan and Snyder (1902a:fig. 2)

Date illustrated: between late 1901 and 18 Jan. 1902 (see P03487, date illustrated).

Length of fish: not directly specified, but Jordan and Snyder (1902a:619) only indicated one specimen, 330 mm, in their description; length as illustrated, 10.5 inches [267 mm].

Media: inked lines and stipples.

Remarks: CBH indicated his charge as “3¹/₈” × 10¹/₄” [= 32.03 square inches @ \$0.50 =] \$16.” Difference (2.4%) between our measurement and CBH's could be due to mechanical error.

P14859—Plate 18 E

*Coregonus johanna*e (Wagner)

Deepwater cisco, Family Salmonidae

Illustration first published as *Leucichthys johanna*e by Jordan and Evermann (1911:plate 3); identification is uncertain.

Date illustrated: 1906, probably early Oct.; outline based on specimen obtained from fishermen, 30 Sept. 1906; color based on two other specimens, date not indicated, all from Lake Huron, off Cheboygan County, Mich.

Length of specimen used for outline: 14.5 inches [361 mm]; length as illustrated, 8.5 inches [216 mm].

Media: watercolor, gouache, and ink.

P14870–Plate 18 F

Coregonus nigripinnis (Milner)

Blackfin cisco, Family Salmonidae

Illustration first published as *Leucichthys nigripinnis* (Gill)

[sic] by Jordan and Evermann (1911:plate 4).

Date illustrated: 1906, probably late July–early Aug.; outline from specimen collected from Lake Michigan off Berrien Co, Mich., 24 July 1906; color from three other specimens.

Length of specimen used for outline: 15.25 inches [387 mm]; length as illustrated, 9.5 inches [241 mm].

Media: watercolor, gouache, ink, lead pencil.

Remarks: DFSA

P14929–Plate 4 C

Liobagrus reinii Hilgendorf

Family Amblycipitidae

Illustration first published as *Liobagrus reinii* by Jordan and Fowler (1903b:fig. 2).

Date illustrated: between summer 1900 (when obtained from K. Otaki) and 5 Dec. 1902, when Barton A. Bean approved the painting (see date illustrated for P11183).

Length of specimen: 3.5 inches [88.9 mm, SL]; length as illustrated, 10 inches [254 mm].

Media: inkwash, a little white gouache, lead pencil.

Remarks: CBH indicated his charge: “1³/₈” × 10” [= 13.75 × \$0.50] \$6.87.”

P15080–Plate 20 A

Lutjanus analis (Cuvier)

Mutton snapper, Family Lutjanidae

Illustration first published as *Neomaenis analis* by Evermann and Marsh (1900:plate 21).

Date illustrated: spring 1897, Key West, Fla.

Length of specimen: about 11 inches [about 279 mm]; length as illustrated, 9.25 inches [235 mm].

Media: watercolor and gouache.

Remarks: DFSA; previously framed.

P15082–Plate 20 D

Lutjanus apodus (Walbaum)

Schoolmaster, Family Lutjanidae

Illustration first published as *Neomaenis apodus* by Evermann and Marsh (1900:plate 19).

Date illustrated: spring, 1897, Key West, Fla.

Length of specimen: about 23 inches [about 584 mm]; length as illustrated, 9.25 inches [235 mm].

Media: watercolor and gouache.

Remarks: Previously framed. DFSA.

P15116–Plate 10 F

Lutjanus synagris (Linnaeus)

Lane snapper, Family Lutjanidae

Illustration first published as *Neomaenis megalophthalmus* by Evermann and Marsh (1900:fig. 48), based on

the holotype, USNM 49531, from Puerto Real, Puerto Rico.

Date illustrated: between 25 Jan. 1899 (when collected) and 29 Dec. 1900 (when published).

Length of holotype: 11.5 inches [292 mm]; length as illustrated, 9.0625 inches [230 mm].

Media: ink stipples.

Remarks: DFSA.

P15477–Plate 8 A

Repomucenus lunatus (Temminck & Schlegel)

Family Callionymidae

Illustration first published as *Callionymus lunatus* by Jordan and Fowler (1903a:fig. 5).

Date illustrated: probably between early summer and mid Oct. 1902 (see P02328, date illustrated).

Length of specimen: ≤ 5.4375 inches [138 mm]; length as illustrated, 13 inches [330 mm].

Media: inkwash, lead pencil, white gouache highlights.

Remarks: CBH indicated his charge as: “Size–1³/₈” × 13” [= 17.875 square inches] [+ “fin–1³/₈” × 2”” [= 2.75 sq. in] [= total 20.62 sq. in.]. [× \$0.50] = “\$10.30.”

P15479–Plate 8 C

Repomucenus virgis (Jordan & Fowler)

Family Callionymidae

Illustration first published as *Callionymus virgis* by Jordan and Fowler (1903a:fig. 9), based on holotype, CAS-SU 7189.

Date illustrated: probably between early summer and mid Oct. 1902 (see P02328, date illustrated).

Length of holotype: 2.69 inches [42.9 mm]; length as illustrated, 12 inches [305 mm].

Media: inkwash, white gouache, lead pencil on “Winsor & Newton’s water colour sketching boards ‘NOT’ surface, made in all sizes & surfaces . . . London, England.”

Remarks: CBH indicated his charge as: “Size 1³/₈” × 12” [= 16.5 square inches × \$0.50 =] \$8.25.”

P15709–Plate 7 F

Callionymus doryssus (Jordan and Fowler)

Family Callionymidae

Illustration first published as *Calliurichthys doryssus*, by Jordan and Fowler (1903a:fig. 4).

Date illustrated: probably between early summer and mid Oct 1902 (see P02328, date illustrated).

Length of specimen: 7.25 inches [184 mm]; length as illustrated, 12 inches [305 mm].

Media: inkwash and white gouache.

Remarks: CBH indicated his charge: “1” × 12” [= 12 square inches × \$0.50 =] \$6.00.”

P17485–Plate 7 I

Callionymus valenciennesi Temminck and Schlegel

Family Callionymidae

Illustration first published as *Callionymus valenciennesi* by Jordan and Fowler (1903a:fig. 6).

Date illustrated: probably between early summer and mid Oct. 1902 (see P02328, date illustrated).

Length of specimen: unknown, but based on information in publication, ≤ 8.625 inches [219 mm]. If the scale line accompanying the figure represents one inch, the complete fish (male) is about 7.3 inches [about 186 mm] TL; length as illustrated, 16 inches [406 mm].

Media: inkwash, some white gouache.

Remarks: CBH indicated his charge as: "Size- $1\frac{1}{2}$ " \times 16" [= 24 square inches] [+]
Fin. 4 sq. in. Total 28 sq. in. [\times \$0.50 =] \$14.00." DFSA.

P17575–Plate 7 C

Callionymus japonicus Houttuyn

Family Callionymidae

Illustration first published as *Calliurichthys japonicus* by Jordan and Fowler (1903a:fig. 2).

Date illustrated: probably between early summer and mid Oct. 1902 (see P02328, date illustrated).

Length of specimen: based on information in publication, ≤ 11.25 inches [about 286 mm]. If the scale line accompanying the figure represents one inch, the complete fish (male) is about 11.25 inches. TL; length as illustrated, 17 inches [432 mm].

Media: inkwash and white gouache.

Remarks: CBH indicated his charge as: "Size 1" \times 17" [= 17 square inches] [+]
fin $1\frac{1}{2}$ " \times $1\frac{1}{2}$ " [= 2.25" square inches] [= 19.25 square inches \times \$0.50 =] \$9.62."

P17576–Plate 9 D

Chirolophis japonicus (Herzenstein)

Family Stichaeidae

Illustration first published as *Bryostemma otohime* by Jordan and Snyder (1902b:fig. 12).

Date illustrated: between summer of 1900 (when collected) 26 Sept. 1902 (when published).

Length of specimen: about 3.2 inches [about 82 mm], based on scale line with illustration; length as illustrated, 16 inches [406 mm].

Media: inked lines and stipples.

Remarks: CBH indicated his charge as: " $2\frac{9}{16}$ " \times 16" [= 41 square inches \times \$0.50 =] \$20.50."

P17577–Plate 9 E

Opisthocentrus zonope Jordan and Snyder

Family Stichaeidae

Illustration first published as *Opisthocentrus zonope* by Jordan and Snyder (1902b:fig. 21).

Date illustrated: between summer of 1900 (when collected) 26 Sept. 1902 (when published).

Length of specimen: about 4.92 inches [125 mm], based on scale line with illustration; length as illustrated, 16 inches [406 mm].

Media: inked lines and stipples.

Remarks: CBH indicated his charge as: " $2\frac{11}{16}$ " \times 16" [= 41 square inches \times \$0.50 =] \$21.50."

P17578–Plate 9 G

Stichaeopsis nana Kner

Family Stichaeidae

Illustration first published as *Ozortho dictyogrammus* by Jordan and Snyder (1902b:fig. 25).

Date illustrated: between summer of 1900 (when collected) and 26 Sept. 1902 (when published).

Length of specimen: about 6.3 inches (about 160 mm), based on scale line with illustration; length as illustrated, 16 inches (about 406 mm).

Media: inked lines and stipples.

P17579–Plate 9 B

Stichaeus nozawae Jordan and Snyder

Family Stichaeidae

Illustration first published as *Stichaeus nozawae* by Jordan and Snyder (1902b:fig. 26), based on the holotype, in a Japanese collection ("Fisheries Bureau at Sapporo").

Date illustrated: between summer of 1900 (made available to Jordan and Snyder during their expedition to Japan) and 26 Sept. 1902 (when published).

Length of specimen: 10 inches [255 mm]; length as illustrated, 16 inches [406 mm].

Media: inked lines and stipples.

Remarks: CBH indicated his charge as: " 2.25 " \times 16" [= 36 square inches @ \$0.50 =] \$18.00."

P17580–Plate 9 F

Chirolophis saitone (Jordan & Snyder)

Family Stichaeidae

Illustration first published as *Bryostemma saitone* by Jordan and Snyder (1902b:fig. 12), based on the holotype, CAS-SU 7072.

Date illustrated: probably between summer of 1900 (given to Jordan and Snyder during their expedition to Japan) and 26 Sept. 1902 (when published).

Length of holotype: Jordan and Snyder (1902b:468) state that the holotype is 95 mm long. Presumably this is standard length, because beginning on page 467, they wrote, "The only specimen which we have of this species is in such a poor state of preservation that accurate statements concerning the lateral line, the extent of the scaly covering, the tentacles of the head, the shape and character of the fins, and points of less importance can not be made; the caudal fin is entirely gone." Total length as illustrated, 16 inches [406 mm].

Media: inkwash and a little white gouache.

Remarks: Considering the condition of the specimen, one must question its usefulness. CBH must have been challenged to prepare the illustration, of which Jordan and Snyder made no comments. CBH indicated his charge as: " $2\frac{1}{2}$ " \times 16" [= 40 square inches \times \$0.50 =] \$20.00."

P17581–Plate 7 D

Callionymus variegatus Temminck and Schlegel

Family Callionymidae

Illustration first published as *Calliurichthys variegatus* by Jordan and Fowler (1903a:fig. 3)

Date illustrated: probably between early summer and mid Oct. 1902 (see P02328, date illustrated).

Length of specimen: 6.31 inches [160 mm]; length as illustrated, 17 inches [432 mm].

Media: inkwash and white gouache.

Remarks: CBH indicated his charge as: “Size 1 1/4 " × 17" [= 21.25 square inches] [+] fin 1" × 1 1/2" [= 1.5 square inches] [= 22.75 square inches × \$0.50 =] \$11.37.”

P21866–Plate 7 H

Callionymus valencienni Temminck and Schlegel.

Family Callionymidae

Illustration first published as *Callionymus flagris* by Jordan and Fowler (1903a:fig. 7).

Date illustrated: probably between early summer and mid Oct. 1902 (see P02328, date illustrated).

Length of specimen: about 7.5 inches (190.5 mm) or smaller, based on information in Jordan and Fowler

(1903a:953); length as illustrated, 16.5 inches [429 mm].

Media: inkwash and white gouache.

Remarks: CBH indicated his charge as: “Size 1" × 16.5" [= 16.5 square inches × \$0.50 =] \$8.25.”

P22113–Plate 9 H

Bryozoichthys lysimus (Jordan and Snyder)

Nutcracker prickleback, Family Stichaeidae

Illustration first published as *Bryolophus lysimus* by Jordan and Snyder (1902d:fig. 3), based on the paratype with 62 dorsal-fin spines in CAS SU 3049.

Date illustrated: probably about same time as CBH was illustrating Japanese stichaeids for Jordan and Snyder’s (1902b) study, between summer of 1900 and 4 Nov. 1902, when published. Specimen was collected 21 May 1890.

Length of specimen: about 100 mm TL, based on a scale accompanying the illustration; length as illustrated, 16 inches [406 mm].

Media: ink and inkwash; lead pencil on fin rays; opaque white gouache highlights.

Remarks: CBH indicated his charge as: “2³/16" × 16" [= 35 square inches × \$0.50 =] \$17.50.”

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