Chordata: Ascidiacea: Phlebobranchia: Corellidae: Corella japonica Herdman 1880

Prepared August 29, 2024; D Pasko; Rev September 20, 2024

SYNONOMY:

COLLECTIONS:

Bight'23 Stations 12133 (6m) and 12137 (4m), Ports of LA, near LA Maritime Museum. Newmark's Yacht Center, Wilmington, CA; collected June 2023 & August 2024 by M. Nydam.

LITERATURE:

Nishikawa, T. (1991). The ascidians of the Japan Sea 2. Publ. Seto Mar. Biol. Lab. 35(1/3): 25-170. Van Name, W.G., 1945. The North and South American ascidians. Bull. Am. Mus. Nat. Hist. 84, 1–475.

DIAGNOSTIC CHARACTERS (see Fig. 3)

- Oral and atrial siphons separated, with atrial siphon located towards anterior end
- Oral siphon typically with 7–8 lobes, atrial with 6 lobes
- Tentacles simple
- Gut on right side of body
- Branchial folds absent, brachial papillae present
- Spiral stigmata (**Fig. 2**)
- Siphon circular muscles well-developed, extending down into the main part of the body in larger specimens; prominent transverse and oblique muscle bands extend to the center of the body (Fig. 1).
- Tunic thin, transparent, colorless in ethanol, covered in fine sand grains, and with many fine, irregular processes varied in length (Fig 5).

Comments:

Corella japonica is an introduced species collected locally for the first time by M. Nydam in June 2023 (personal communication). It is distinguished from *C. willmeriana* Herdman 1898 by strong prominent oblique and longitudinal muscle bands extending towards the center of the body, absent from *C. willmeriana*.

Corella japonica is distinguished from Ascidia and Ascidiella spp by having the gut on the right side of the body rather than left, and the possession of spiral stigmata rather than straight (**Fig. 4**). In addition, like Corella, Ascidia have branchial papillae, while Ascidiella do not.

Fig. 2. Branchial basket with papillae and spiral

stigmata.

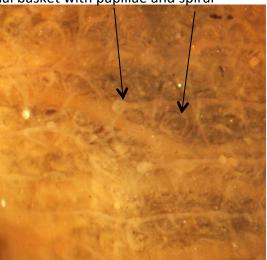


Fig. 1. Entire Bight'23 Stn 12133 specimen, right side



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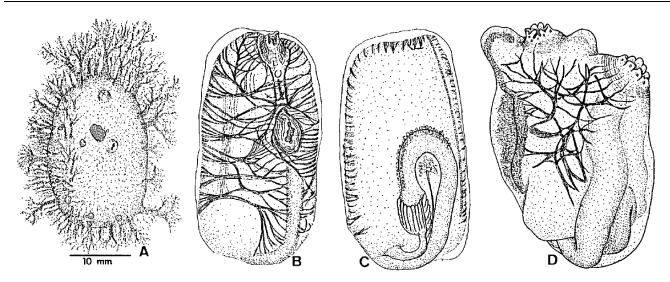
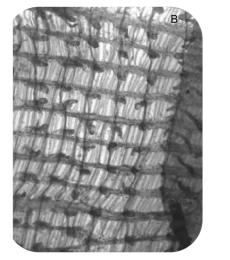
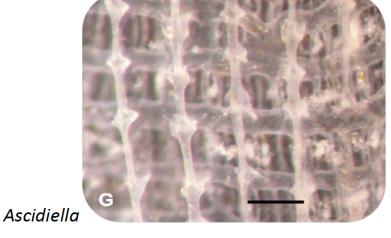


Fig. 3. Corella japonica Herdman. A-C. 24 mm long specimen from off Amino-cho, Kyoto Pref. (Collection F-1); D. 8 mm long specimen from Oki Isis (N). A. left side of the whole body; B & D. left side of mantle body; C. right side of mantle body. **From Nishikawa (1991)**





Ascidia

Fig. 4. Ascidia vs. Ascidiella showing presence/absence of papillae and straight stigmata. Straight. **Courtesy of G. Lambert via M. Nydam.**

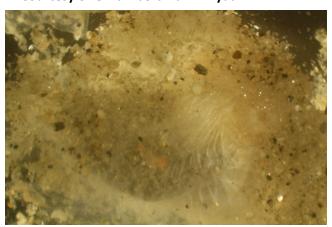




Fig. 5. *Corella japonica* tunic of 2 cm and 1.5 cm (left and right, respectively) specimens from Station B23-12133.