186. *The Recent Brachiopod Fauna of Japan.*

(2) *New Species.*

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The second report deals only with the species believed to be new to science and not described in the first report.

Hemithyris pellucida nov. Figs. 1-4.

Type loc.: Sôyô-maru Station 223, 33°13'50'' N., 133°38'40'' E., 311 m., bottom temp. 9.8° C. Reg. No.¹⁾ 56219.

Shell small, subtransparent, ovate-trigonal, impunctate, light yellowish brown; both commissures rectimarginate, sculptured by fine concentric lines of growth and microscopic radial striae; beak small, rhynchonelliform, foramen incomplete and oval, dental plates thin, high, slightly recessive ventrally; dorsal valve with thread-like septal ridge, not extending to middle of valve; muscular impression feeble. Length ca. 9.8, width 8.6, depth 5.5 mm.

Characterized by its straight commissures, thin shell, surface sculpture, nearly equal convexity of the valves and general outline.

Terebratulina pacifica nov. Figs. 22-24, 29.

Type loc.: Sôyô-maru station 209, 33°25'40'' N., 135°39'10'' E., 256 m., bottom temp. 15.3° C. Reg. No. 56237.

Distinguished from *T. retusa* (L.) by having no medial depression, straight or indented front, raised concentric lines of growth and much broader radial ribs. From *T. japonica* (Sow.) by having broader, depressed radial ribs and narrower interspaces. From *T. callinome* (Dall) by having broader radial ribs and narrower interspaces. Length ca. 24, width 16, depth 12 mm.

Distribution: Sôyô-maru stations 209, 210, 211, 230, 239, 244, 269, 294, 301, 327, 331, 333, 325 (Pacific), and 429, 431, 438, 440 (west coast of Kyûsyû), 30°55'40''-35°15'30'' N., 130°55'50''-139°39'10'' E., depth 102-344 m., bottom temp. 8.1°-20.3° C.

Terebratulina kyusyuensis nov. Figs. 37-40.

Type loc.: Sôyô-maru station 414, 30°33'30'' N., 130°19' E., 514 m. Reg. No. 56220.

Shell small, subtransparent, pear-shaped, nearly equally convex,

1) This is the register number of the type specimen stored in the Institute of Geology and Palaeontology, Tôhoku Imperial University, Sendai.

densely punctate, light yellowish brown; anterior commissure rectimarginate, the lateral weakly flexuous, sculptured by faint concentric lines of growth; beak nearly straight, foramen incomplete; pedicle collar strong; dorsal and ventral muscular impressions feeble. Cardinalia and loop characteristic of the genus. Length ca. 11, width 8.5, depth 5.5 mm.

Distinguishable from its nearest allied forms by the nearly equal convexity of the valves, subtransparent shell, rectimarginate folding, surface sculpture and delicate coloration.

Jolonica nipponica nov. Figs. 16-18, 25.

Type loc.: Sôyô-maru station 334, 32°37' N., 132°56'30'' E. Reg. No. 56225.

Resembling *J. hedleyi* (Dall)¹⁾ in outline, differing in possessing weaker hinge-teeth, a stronger pedicle collar, no septal ridge ending anteriorly in a small knob from which two shallow divergent furrows extend forward nearly to the anterior edge of the valve, and by having dense punctation. Light yellowish white and tinged with pink or light red. Length ca. 17, width 13.6 depth 10.5 mm.

Distribution: Sôyô-maru station 270 and 334 (Pacific), depth 91 m., bottom temp. 16.5°-19° C.

Dallina obessa nov. Figs. 27, 28, 36.

Type loc.: Sôyô-maru station 606, 38°50'40'' N., 138°44'20'' E., 117 m. Reg. No. 56322.

Shell resembling *D. raphaelis* (Dall), but differing in possessing a more solid shell, being much more swollen, stronger sculpture and different outline. Length ca. 31, width 23, depth 23 mm.

Dallina triangularis nov. Figs. 31-35.

Type loc.: Sôyô-maru station 419, 32°12'10'' N., 129°49'45'' E., 402 m., bottom temp. 9.6° C. Reg. No. 56221.

Shell resembling *D. raphaelis* (Dall), but differing in possessing a strongly triangular shell, being broadest anteriorly, more strongly curved lateral commissure, small shell and different coloration. Length ca. 23.5, width 21, depth 16 mm.

Laqueus quadratus nov. Figs. 10-13, 15.

Type loc.: Sôyô-maru station 421, 31°25' N., 129°54' E., 307 m., bottom temp. 11.5° C. Reg. No. 56231.

Simulating *L. blanfordi* (Dkr.), but differing in having a quadrate outline, in the posterior part of the ascending branches and the trans-

1) Dall: Proc. U. S. Nat. Mus. Vol. 57, No. 2314, pp. 366-367, 1920.

verse band being squarely concave at its upper part and squarely convex at its lower part, thus making the transverse band narrow medially and broader laterally. Length ca. 19.2, width 15.9, depth 17.5 mm.

Distribution: Sôyô-maru station 475, 584, 591, 603, 605, 606, 620, 628, 637, 647 (Japan Sea), 421, 444 (west coast of Kyûsyû), 474 (Korean Strait), 80 (Tugaru Strait), 209 (Pacific), $31^{\circ}25' - 41^{\circ}17'30''$ N., $128^{\circ}37'30'' - 141^{\circ}29'$ E., depth 86-307 m., bottom temp. $2.9^{\circ} - 18.2^{\circ}$ C.

Laqueus japonicus nov. Figs. 19-21, 26.

Type loc.: Sagami Bay? Reg. No. 47853.

Shell resembling *L. californicus* (Koch)¹⁾ of Californian waters in general outline, beak characters, type of folding and in attaining a large size, differing in possessing a thicker shell, larger foramen, more incurved beak and brownish color. Length 44.2, width 37, depth 27 mm.

Distribution: Sôyô-maru station 601, 603, 610 (Japan Sea), 143 (Pacific), $37^{\circ} - 38^{\circ}52'23''$ N., $138^{\circ}18'40'' - 141^{\circ}10'$ E., depth 132-454 m., bottom temp. $1.3^{\circ} - 16.2^{\circ}$ C.

Laqueus proprius nov. Figs. 5-9, 14.

Type loc.: Sôyô-maru station 487, $35^{\circ}27'30''$ N., $130^{\circ}35'35''$ E., 194 m., bottom temp. 2.4° C. Reg. No. 56218.

Shell small, solid, transversely-suborbicular, both commissures recti-marginate, valves nearly equally convex; ashy yellow, punctate; hinge line broadly angulate; beak high, suberect, foramen usually large and incomplete, margined anteriorly by dorsal umbo; pedicle collar long and sessile; sculptured by rough concentric lines of growth; interior peculiarities characteristic of the genus. Externally resembles *Diestothyris frontalis* (Midd.), but generically distinct. Length ca. 24, width 23, depth 8 mm.

Laqueus orbicularis nov. Figs. 41-44.

Type loc.: Sôyô-maru station 451, $32^{\circ}43'$ N., $128^{\circ}11'45''$ E., 187 m., bottom temp. 14° C. Reg. No. 56234.

Shell small, orbicular compressed, thin, both commissures recti-marginate; test densely punctate, sculptured by faint concentric lines of growth, light yellowish; interior characteristic of the genus. Length ca. 9.2, width 9, depth 4.2 mm. Probably a young of a certain larger form unknown to us at present.

Distribution: Sôyô-maru station 213, 262 (Pacific), 451 off Hizen-Gotô, 611, 637 (Japan Sea), $32^{\circ}43' - 40^{\circ}20'37''$ N., $128^{\circ}11'45'' - 139^{\circ}35'30''$ E., depth 143-604 m., bottom temp. $6.0^{\circ} - 14.7^{\circ}$ C.

1) Thomson: Brach. Morph. a. Gen., p. 258, fig. 85, 1927.

Text Fig. 1-44. Nat. Size.