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New taxa, records, and data for vesicomyid bivalves from Cenozoic strata of the North Pacific region

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New discoveries of Cenozoic deep-water hydrocarbon seep deposits and continued collecting at previously documented sites in the North Pacific region have resulted in additional fossils of vesicomyid bivalves and necessitate a systematic review. We report five new vesicomyid species, including four species from western Washington State, USA: *Isorropodon humptulipsense* sp. nov. from middle to upper Eocene strata of the Humptulips Formation and the "Siltstone of unit B", the oldest record for *Isorropodon, Pleurophopsis thieli* sp. nov. from upper Eocene to lowermost Oligocene strata of the Lincoln Creek, Makah, and Pysht formations, and *Pliocardia? guthrieorum* sp. nov. and *Squiresica plana* sp. nov. from Oligocene strata of the Lincoln Creek and Pysht formations. The new species *Squiresica yooni* sp. nov. is from the Middle Miocene Duho Formation in South Korea. We report possibly the as-yet oldest *Vesicomya* from a lower Oligocene seep deposit in the Lincoln Creek Formation in western Washington. *Pliocardia kawadai* was previously only known from Lower to Middle Miocene strata in Japan; with our new record from the Lower to Middle Miocene Astoria Formation in western Washington, this species represents the first fossil vesicomyid species with a trans-Pacific distribution. The large and elongated *Pleurophopsis chinookensis* is restricted to upper Eocene strata; previous Oligocene records are shown to belong to other species.

Key words: Bivalvia, chemosymbiosis, deep-sea, Japan, South Korea, USA, Washington.

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