Jurassic and Cretaceous gastropods from hydrocarbon seeps in forearc basin and accretionary prism settings, California

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Fourteen gastropod species from 16 Mesozoic hydrocarbon seep carbonate deposits of the Great Valley Group and Franciscan Complex in California are described. Two genera are new: Bathypurpurinopsis has a fusiform shell with a siphonal fold, and variable Paskentana has turbiniform or littoriniform shells with spiral and/or scaly sculpture and convex or shouldered whorls. Due to the lack of data on shell microstructure and protoconch morphology, many of our taxonomic assignments have to remain tentative at present. Species that are described as new include: Hokkaidoconcha bilirata, H. morenoensis, H. tehamaensis (Hokkaidoconchidae), Abyssochrysos? giganteum (Abyssochrysidae?), Paskentana globosa, P. berryessaensis, and Bathypurpurinopsis stantoni (Abyssochrysoidea, family uncertain). The total fauna represents a mixed bag of taxa that were: (i) widely distributed during the late Mesozoic (Amberleya); (ii) restricted to late Mesozoic seep carbonates in California (Atresius, Bathypurpurinopsis, Paskentana); and (iii) members of seep/deep-sea groups with a long stratigraphic range (abyssochrysids, hokkaidoconchids).

Key words: Gastropoda, hydrocarbon seeps, deep-water, Great Valley Group, Franciscan Complex, California.

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