



A new species of *Aaptos* (Porifera, Hadromerida, Suberitidae) from Pribilof Canyon, Bering Sea, Alaska

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The Bering Sea is predominantly a shallow sea, with a massive shelf mostly shallower than 100 m. Pribilof Canyon and Zhemchug Canyon, two of the largest submarine canyons in the world, were explored in August 2007, by the Greenpeace vessel “Esperanza”, with manned submersibles and a remotely operated vehicle (ROV) to depths of 1000 m. Specimens were collected with hydraulic manipulators operated by the pilots of the submersibles or with the ROV. Once on deck the specimens were transferred to ethanol. Pribilof Canyon is 426 km long and 1800 m deep, while Zhemchug Canyon is even larger and reaches depths of more than 2600 m (Normark and Carlson 2003). Here we describe a new species of *Aaptos* and compare it with representative congeners. The genus *Aaptos* was erected by Gray (1867) for *Aaptos aaptos*, described by Schmidt (1864) as *Ancorina aaptos*. Today, *Aaptos* is placed in Suberitidae Schmidt, 1870 and contains 21 species (Van Soest *et al.* 2005). For a more detailed historical review of the family and genus we refer to the publications of Kelly-Borges & Bergquist (1994) and to Van Soest (2002). According to Van Soest (2002), *Aaptos* is separated from other Suberitidae by its spherical or lobate growth forms, and by the presence of a strictly radial skeleton that contains characteristic strongyloxeas. The type species was described from the Mediterranean Sea (Algeria) and was then reported from many other areas of the world. These subsequent records likely represent additional undescribed species of *Aaptos* (Van Soest, 2002).

Order Hadromerida Topsent, 1894

Family Suberitidae Schmidt, 1870

Genus *Aaptos* Gray, 1867

Aaptos kanuux sp. n.

Holotype: USNM 1117764; Figs. 1A–C, stored in ethanol after collection. Collected by Kenneth Lowyck in Pribilof Canyon at 219 m depth, 1 August 2007, 55°59.431N, 170°01.378W.

Description. The sponge is irregularly globular, somewhat wider than high, diameters range from 9 to 19 mm (Fig. 1B). At the base the sponge is firmly attached to two small black pebbles (Fig. 1B). The surface is almost smooth, microscopically slightly uneven and in places microhispid, due to protruding spicules. Live color is mustard yellow (Fig. 1A), in ethanol the sponge is greyish beige. In life, the black pebbles were buried in the silt with only the sponge protruding (Fig. 1A). No oscules are visible, neither on the collected specimen, nor on videos. The consistency is firm, only slightly elastic, and almost incompressible. The radial arrangement of the spicules in the interior of the sponge is evident with the unaided eye on sections perpendicular to the surface (Fig. 1C).

Spicules. Spicules are strictly arranged radially in all parts of the sponge (Fig. 1C); spicule density is very high throughout the sponge and thus the consistency is hard. There is no cortex. Single spicules are grouped in polyspicular tracts which are slender at start (as paucispicular tracts, 30µm in diameter) containing only few spicules per cross section. These polyspicular tracts widen towards the surface and reach diameters of 420µm with approximately 20 spicules per cross section. Small tylostyles form a dense palisade at the surface. Spicules at the ends of the polyspicular tracts can protrude through the palisade in some places and cause the microhispid surface there. Three types of spicules are proper