

Genetic divergence in the ascidian *Pyura Praeputialis* (= *Pyura Stolonifera*) (Heller, 1878) from Mainland Australia and Tasmania

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Abstract

In Australia, the sea squirt *Pyura praeputialis* is found off the mainland and off the island of Tasmania. The extent of genetic divergence between insular and mainland continental samples was determined by performing a DNA analysis using PCR-RFLP on the internal transcribed spacer region of ribosomal DNA. The two mainland populations were polymorphic and showed similar type frequencies, but both were significantly different from the Tasmanian population. This was also monomorphic, showing a unique type, absent from the two continental populations. The genetic differentiation could be explained by the lack of genetic flow observed between both mainland and Tasmanian populations.