

UK Overseas Territories Conservation Forum

Championing UK's most special species: the wildlife of UK's Overseas Territories (UKOTs) and Crown Dependencies (CDs)

FACT-SHEET ON:

Endemic land snails: Greater and Lesser Bermuda Land Snails Poecilozonites bermudensis and Poecilozonites circumfirmatus UK Overseas Territory: Bermuda

The genus *Poecilozonites* contains at least 12 species of land snails, which are all endemic to Bermuda. Two species, the Lesser Bermuda Land Snail *Poecilozonites circumfirmatus* and the Greater Land Snail *Poecilozonites bermudensis* are extant; the rest are extinct.

The Greater *P. bermudensis* was believed to be extinct by the early 1990s, but was rediscovered in 2014, around 40 years after its last sighting in the wild: a healthy colony of these snails turned up in the heart of Bermuda's capital city, Hamilton, in a damp and overgrown alleyway. Two wild populations now known. Captive *P. bermudensis*, bred in Bermuda and at Chester Zoo, have been released in the nature reserve on Nonsuch Island where the new colony is thriving.

The Lesser *P. circumfirmatus* has now (August 2019) been formally assessed as Critically Endangered and possibly extinct in the wild, but breeding is underway at the Zoological Society of London and Chester Zoo for eventual repatriation. Formerly widespread across Bermuda, its has been linked with the spread of invasive invertebrate predators, especially flatworms and snails, particularly the Rosy Wolf Snail *Euglandina rosea* (introduced in the late 1950s & 1960s in a misguided attempt to control another introduced snail *Otala lactea*). Habitat loss and alteration, largely due to built development, probably have also contributed to declines. Live specimens were last found between 2002 and 2004 at four widely spaced sites on the south coast of the Main Island, but subsequent search efforts have failed to confirm the continued presence of the species at these sites.

A recovery plan for both species has been prepared, and efforts for reintroducing the species to secure habitats are under way.

Their natural habitat is tropical dry and moist forests, globally threatened and virtually gone in Bermuda. They occur in coastal habitats, where they are found under loose rocks and in leaf litter under herbaceous cover. The availability of moist retreat sites is essential for survival over long dry periods. The landscape of Bermuda has been extensively modified since human settlement in the 1600s, and presently natural habitats are confined to a few, isolated patches mainly within parks and nature reserves. These remnant habitat patches continue to be degraded by introduced invasive plants and animals, and it is reasonable to assume that the composition of the litter layer and associated fungi on the forest floor has changed. These changes would have reduced the food supply for possible remnant populations in natural habitats. Other threats include modification of the litter layer and substrate where the snails live by introduced animals and plants. Feral chickens are ubiquitous on the larger islands and, despite control efforts, continue to modify the forest floor through their scratching. Feral chickens are present in conservation areas and at several sites where live specimens of the snails have been

found.



Above: Greater Bermuda Landsnail Poecilozonites bermudensis, © Alison Copeland, Bermuda Government Department of Environment & Natural Resources. Below: Cover of the Department's Recovery Plan for these two species

