

## The Scaly Cricket - the star of Marloes Sands

*This article is adapted from one written by Prof. Karim Vahed of the University of Derby and published in the Pembrokeshire Biodiversity Newsletter.*

“The scaly cricket (*Pseudomogoplistes vicentae*) is amongst the rarest and least well studied of the U.K.’s Orthoptera (grasshoppers and crickets). It is highly unusual for a cricket in that it lives on beaches amongst shingle and under larger stones. The scaly cricket is currently known from only four localities in the U.K., two of which (Marloes Sands and Dale bay) are in Pembrokeshire.



I have been studying this enigmatic species at Marloes Sands over the last three years. I began by gathering data on the life cycle, about which relatively little was known. This entailed visiting Marloes Sands in each season to assess the life cycle stages present, combined with rearing individuals in the laboratory, from eggs to adult, at the University of Derby. The results so far indicate that a scaly cricket must survive two winters during its life time in order to reach adulthood. The eggs, which are laid in the summer, take a whole year to hatch. The resulting nymphs are only half-grown by the start of the next winter and become adult during the following summer. Some females can even survive a third winter as adults.

Surviving winter in a habitat of shifting shingle is quite a feat. I first visited the Marloes Sands site in the spring following the severe storm surges of winter 2013/14, which caused extensive damage all along the Welsh coast. I was sceptical about whether I would find any scaly crickets at all and, for the first half an hour of searching, had no success. I was about to give up when my son, Gabriel (who was seven at the time) announced that he had just found three under one stone! The crickets had survived. Further searches in the immediate vicinity revealed a very healthy population.

The news, however, was not all good: the scaly crickets and their shingle habitat have all but disappeared from a very large section of their former range along the eastern end of the beach. Comparing photographs of the scaly cricket habitat along that stretch of beach taken in 2006 with those taken this year, the dramatic loss of shingle and cobble banks at the base of the cliff is very evident. This means that the main population at Marloes Sands is now restricted to a stretch of beach only about 200 metres long. I am still optimistic about the long term survival of the scaly cricket, however. It is clearly well adapted to its somewhat severe habitat.

While studying its life cycle, I observed that females prefer to lay their eggs in drift-wood. This raises the intriguing possibility that overwintering eggs might be able to survive winter storms by “rafting”. Furthermore, it may well be that the species is under-recorded in Pembrokeshire and the rest of the U.K. After all, the population at Marloes Sands was only discovered in 1999. Surveys of other suitable locations around the Pembrokeshire coast might well yield new records. “

*Note from the editor: Does this mean that we should discourage people from collecting driftwood from Marloes Sands for firewood and barbecues? At the moment everybody does it - how many Scaly Cricket eggs are going up in smoke?*