

HABITS.

HALOBATES.

Except for the sake of calling attention to the necessity of observations, it is almost unnecessary to devote any space to this part of the subject, so little is known about it. The little that has been recorded about individual species has been noticed under each.

Mr. Murray writes to me as follows:—

“ I have looked through my Challenger journals carefully for notes about *Halobates*, and find that I have noted its occurrence in the Atlantic 21 times between the latitudes 35° N. and 20° S., and 38 times in the Pacific between lats. 37° N. and 23° S. It would thus seem that these insects are confined to the warmer waters of the ocean, as we have no note of their occurrence north or south of these latitudes during our cruise.

“ While the Challenger was engaged in dredging in the open ocean, a boat was lowered for the use of the naturalists whenever the weather permitted, and when away on such occasions *Halobates* was frequently observed. When the boat during calm weather was rowed near a dead *Porpita*, *Physalia*, *Salpa*, or fragment of some other creature floating on the surface, three or four *Halobates* would occasionally be observed to start out from it, and skim away over the surface in different directions. At first I thought that the insects were merely resting on the floating objects, but latterly I came to believe that they were feeding on them.

“ The majority of the specimens taken by the tow-net were dead when brought on board, but we frequently took them alive, and observed them skimming over the surface of the water in our globes.

“ We captured them both during the day and during the night; but most frequently when the ship was steaming during a calm, and the tow-net was kept dipping at the surface of the water. When the net was dragged beneath the surface, we did not, of course, expect to capture creatures scudding about on the surface; and nine-tenths of our tow-net observations were made by sinking the net beneath the surface. Hence on these occasions no specimens of *Halobates* were captured.

“ On one occasion only have I observed *Halobates* dive. This was on 31st March 1875, on the passage from New Guinea to Japan, when a specimen having been captured alive, was seen to dive in the globe. Our assistant, Mr. Pearcey, says he remembers the circumstance distinctly.”

As a corroboration of this observation of the diving powers of *Halobates*, the following note¹ by Mr. J. J. Walker, of H.M.S. “ Kingfisher,” may be quoted:—“ I saw a good many specimens of the oceanic bug, *Halobates*, sp. ? on November 26, about 400 miles from the nearest land (on the voyage between San Francisco and Callao), and caught a few for Dr. Buchanan White. They are curious little ivory-legged fellows, resembling our

¹ *Entomologist's Monthly Magazine*, vol. xix. p. 278, May 1883.