

RAVALLEC BAY BEACHED PORPOISES

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On the night of 15 Nov. 1972, 32 Hawaiian porpoises, Peponocephala electra (Nishiwaka and Norris, 1966), stranded themselves on the eastern part of the beach (la Pointe Levenat) in Ravallec Bay, south of Mallicolo, New Hebrides (16°20'S, 167°30'E). The majority of these were males. The next day, a second group of 199 porpoises, the majority of which were females, beached themselves at the western extremity of the beach. Many of these females were carrying fully formed fetuses. The main group of not stranded porpoises remained in the bay until 17 Nov. and then moved back out into the ocean.

At the time of the beaching, weather conditions were as follows : sky-cloudy; wind-ENE at 15-18 knots; rainy in the evening, stormy at night; moon in its first quarter, rising at 01 : 25; sea high.

ORSTOM was first notified of the incident on 27 Nov. and returned on 5 Dec. The long period of time that elapsed between the beaching and the examination of the porpoises did not permit individual biological examination. The carcasses were decomposed with the skeletons visible. Photographs were taken on the day following the grounding, but the high temperature and strong sun had caused the skin to peel and the bodies to swell. Four craniums, fragments of the spinal column and various pieces of bone were taken for study.

The porpoises remains were examined by Dr. P. Rancurel in collaboration with Dr. Van Bree of the Museum of Amsterdam.

It was hypothesized that numerous streams of water entering into the bay, the high temperatures and good weather in November caused stratification of the water in the bay (due to differences of salinity and temperature). This stratification was thought to have affected the porpoises sonar and caused confusion.