PROPOSTA DE UM ÍNDICE PARA AVALIAR E MONITORAR A SAÚDE DE TETRÁPODES MARINHOS APLICÁVEL A MAMÍFEROS MARINHOS

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Marine tetrapods are considered sentinel species and can be good indicators of the ecosystems' health. The accidental capture in fishing nets is the main threat for many marine mammal species, causing the death of the animals, but this could be considered as an acute impact. However, marine mammals are exposed to many other impacts of sub-lethal effect. A system for evaluating and monitoring chronic impacts to marine mammals is important to support conservation and management policies. Synthesize various animal health parameters in an index allows spatial and temporal evaluations of the populations´ health, indicating also possible impacts in their habitats. The objective of the present study was to propose a health index for marine tetrapods stranded on the beaches applicable to marine mammals. The proposed index uses eight parameters: body score; systemic affections (macroscopy); tegumentary lesions; systemic affections (histopathology); organized injuries; parasitosis associated with histopathological changes; lymphoid depletion; and thyroid changes. For each parameter (P) a score (S) and a weighting value (V) were assigned, which is related to the severity of the parameter for the health of the animal and the number of organs affected. The criteria used to evaluate the parameters should be clear and objective and allowing them to be replicated minimizing the subjectivity effect of the observers. Thus, the health index (HI) could be expressed as $HI=\sum P_i$ where $P_i=S_i*V_i$, ranging from zero to 45. Low values would correspond to healthy animals and high values to animals with compromised health. The interpretation of the health status of the animals could be considered according to the values observed in the index: 0 to 9 = excellent; 10 to 18 = good; 19 to 27 = moderate; 28 to 36 = bad; and 37 to 45 = extremely bad. The parameters used for the proposed index represents the life history in a long term for each animal, reflecting the chronic effects to which they are subjected. In this way, they could be very helpful to monitor change the environment quality.