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Programme and General Info

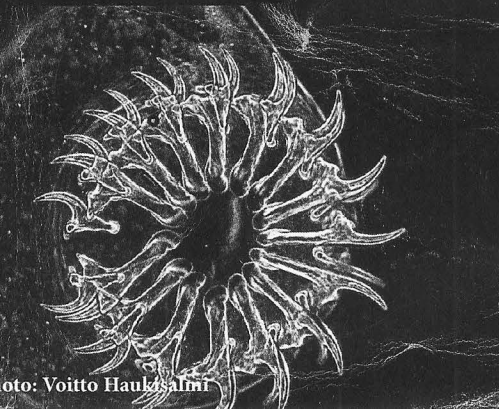


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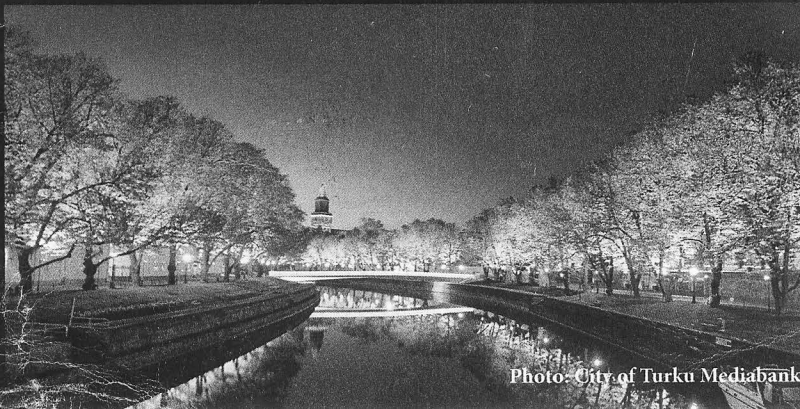


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Parasitological and pathological studies on northern fur seals (*Callorhinus ursinus*) on St. Paul Island, Alaska

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Populations of northern fur seals (*Callorhinus ursinus*) (NFS) in the Northern Pacific have declined dramatically since the 1950s. Multiyear monitoring studies (1986–2014) were performed at St. Paul Island, Alaska, to document causes of NFS mortality. Over 3,200 pups, 101 subadult males, and 210 adults were examined. In 2011–2014, gastrointestinal helminthes (>27,000) were collected from the subadult males. Post mortem examinations revealed that the main causes of mortality were: A) in NFS pups: starvation (54.7%), perinatal mortality (19.9%), trauma (18.3%), infections (2.8%), miscellaneous conditions/autolysis (4.6%) and congenital anomalies (2.2%); B) in subadult males: hyperthermia (98%) and trauma (2%); C) in females: bite wound/cellulitis (67%) and dystocia (18%); in males: trauma/bite wounds/cellulitis (92%).

Parasitological examinations revealed 19 helminth species parasitizing subadult NFS males. Five nematode species (*Anisakis simplex*, *Contraecaecum osculatum*, *Pseudoterranova decipiens*, *P. azarazi*, *Phocascaris cystophorae*) were found. Prevalence of nematodes was 92.5%, and intensity 1–162. Three cestode species (*Adenocephalus pacificus*, *Diplogonoporus tetrapterus*, *Anophryocephalus ochotensis*) were found with prevalence of 98.5%, and intensity of 1–107. Seven acanthocephalan species (*Corynosoma strumosum*, *C. alaskensis*, *C. semerme*, *C. similis*, *C. validum*, *C. villosum*, *Bolbosoma nipponicum*) were found; prevalence was 49.7% and intensity 1–29. Four trematode species (*Phocitrema fusiforme*, *Pricitrema zalophi*, *Nanophyetus salminicola*, *Stictodora* sp.) were found with prevalence of 32.3% and intensity of 1–1,540. Considering the low intensity of NFS infection with helminths, these parasites probably are not playing a role in the 60-year decline of NFSs; however, in combination with other factors, they may contribute to the overall decline.