Fisheries and Oceans Pêches et Océans

Canada

SHELLFISH HEALTH REPORT

Pacific Biological Station
Nanaimo, B.C.
V9T 6N7

Sample Information

Case No.:	8360
Collection Date:	September 19, 2013
Location:	Howe Sound, Defence Islands (49 34.515' N 123 16.524W)
Species:	Sea Stars (*Solaster dawsoni* n=4, *Pycnopodia sp.* n=4, *Evasterias troschelii* n=2)
Size / Age:	Various / Unknown
History:	Wild
Purpose:	Investigate the cause of high sea star mortalities reported from Howe Sound and surrounding areas.
Contact Info.:	Douglas Swanston, Seacology, Email: seacology@telus.net Phone: (604) 987-4675

Macroscopic Observations

- Apparently healthy / normal sea stars were collected near areas of abundant dead and decomposing sea stars. Tissue samples were preserved in 10% buffered formalin. The gonads of some specimens were dark coloured and had a lobular appearance.
- Primary tissues preserved were gut and gonad and for some specimens the aboral surface of the disc and or arms were also included.

Histological Examination (Sample Size = 10 specimens, 18 slides)

- Tissues examined (but not present in all specimens) include: gut, gonad, epidermis, calcareous skeleton, connective tissue, spines, pedicellariae, tube feet and water vascular system.
- Sex ratio: 3 mature males, 1 spent male, 3 mature females, 1 immature and 2 no gonad present.
- Ciliates were detected in the gut lumen of 1 specimen, however no pathology was associated and they appear benign. The ciliate *Orchitophyra stellarum* which is known to parasitize the gonads of sea star was not detected in these samples.
- All tissues appear to be healthy and no pathology of concern or infectious disease organisms (bacterial, fungal or protozoa) were detected.

Conclusions

No infectious diseases were detected in these samples that would help to explain the cause of the mass die off observed in sea stars from the Howe Sound area.

Gary Meyer (250) 756-7034

October 4, 2013
Date

Please note: this report applies solely to the animals examined and should not be considered as a certificate of health for the entire stock or population. Such certification cannot be absolute and would require repeat sampling and monitoring to guidelines specified by the World Animal Health Organisation (OIE). The scope of this examination is limited to the detection of pathology, symbionts, parasites or infectious organisms that can impact the health of shellfish. It does not include any tests concerning chemicals, pollutants or human health concerns.