Sarcotaces

I. Causative Agent and Disease

*Sarcotaces arcticus* is an endoparasitic copepod several centimeters long found encysted under the skin and in the muscle tissue of marine fish. The copepod inserts its head into the flesh, and is eventually covered by the host skin except for the last pointed body segment that maintains connection with the outside seawater. When the copepod dies, the tissue forms a closed cyst around the parasite. In Alaska, this parasite is most commonly found in rockfish (*Sebastes* spp) encysted near the anus where surrounding intestinal tissue forms a sac like process. When fish are filleted the ruptured cysts release a black fluid from the breakdown of blood that the parasite has engorged.

II. Host Species

This parasitic copepod is found most commonly in species of *Sebastes* spp. in the northern Pacific Ocean and in several other genera of teleosts in European waters.

III. Clinical Signs

*Sarcotaces* parasites are difficult to detect externally because of the subdermal location. If the encysted copepod (the female) lies over a bony surface, swelling of the skin may occur.

IV. Transmission

The life cycle is direct having only one host. Transmission is horizontal by release of larval copepodids into ambient seawater from the encysted adult female. The juveniles seek out a new host to continue the cycle.

V. Diagnosis

Diagnosis is made by internal examination of the fish for characteristic pear shaped cysts exuding black fluid and microscopic identification of the larger female parasite. The body is oval with ill-defined transverse bands corresponding to segments and a double rosette is often visible around the mouthparts.

VI. Prognosis for Host

Prognosis for the host is good if infestation is minimal and there are no significant environmental stressors present. Infestations by *Sarcotaces* are associated with lower fecundity in rockfish and fish flesh becomes unappealing when fillets are tainted with the fluid leaking from cysts.

VII. Human Health Significance

There are no human health concerns with *Sarcotaces*. 
Sarcotaces encysted in intestinal tissue near anus of rockfish

Adult Sarcotaces dissected from a cyst (mm)