Epistylis (Heteropolaria)

I. Causative Agent and Disease

Epistylis is a sessile, ciliated protozoan that propagates as colonies at the ends of non-contractile stalks on the skin, and sometimes the gills, of fish. Epistylis is not a true parasite but an epibiont that utilizes fish only as a substrate for attachment. The disease is one of biofouling rather than infection causing smothering and stress allowing for the invasion of secondary pathogens. The protozoan exists worldwide.

II. Host Species

All species of salmonids are susceptible. Egg masses of catfish and other warm water fish species may also be affected.

III. Clinical Signs

Flashing is a nonspecific sign of external infestation by any protozoan. Infested fish may also produce excessive external mucus.

IV. Transmission

This organism is horizontally transmitted from fish to fish. Slow water flows with high organic loads favor the growth of Epistylis.

V. Diagnosis

Diagnosis is made by observation of the protozoa in wet mounts of skin scrapes. The colonies appear like a cluster of bluebells growing on a stalk attached to the fish by a disc.

VI. Prognosis for Host

The prognosis for an infested fish is good if organism numbers are low and fish are not stressed. Heavy colonial growth in a hatchery setting must be treated with chemicals (formalin or hydrogen peroxide) to reduce numbers of protozoa and prevent secondary infections by bacteria and fungi.

VII. Human Health Significance

There are no human health concerns associated with Epistylis.
Stalked ciliates of the genus *Epistyris*