

Sunburn (Back-Peel)

I. Causative Agent and Disease

Sunburn is a non-infectious disease in cultured fish caused by overexposure to ultraviolet radiation (UV) from sunlight. Certain diet ingredients causing photosensitization can be predisposing factors. Sunburn is most commonly observed during the summer months in the northern latitudes when hatchery fish are moved from an indoor rearing container to shallow outside units with very clear water. Wild fish in shallow lakes and rivers could be potentially susceptible except they rarely remain in direct sunlight long enough for overexposure.

II. Host Species

Sunburn is observed almost exclusively in cultured salmonids exposed for long periods to direct sunlight. Other fish species with small delicate scales, partial scaling or no scales at all would also be particularly susceptible.

III. Clinical Signs

Lesions from sunburn are first recognized by a darkening of the skin between the head and the dorsal fin. The epidermal layer turns white and eventually sloughs off. The underlying dermal layer of skin becomes exposed and eventually a white, craterous lesion forms. This lesion can begin with the dorsal fin that first becomes whitened and then erodes to the body surface. Any lesion from sunburn is very likely to become infected with opportunistic bacteria, water molds or fungi.

IV. Transmission

Since sunburn is an environmentally mediated disease, transmission between fish does not occur.

V. Diagnosis

Sunburn is diagnosed by the observation of typical lesions with a history of lengthy exposure to sunlight.

VI. Prognosis for Host

When the lesions are uncomplicated by secondary infections of bacteria or fungi, the mortality is generally quite low. If shade is provided, healing of the lesions is rapid with complete recovery.

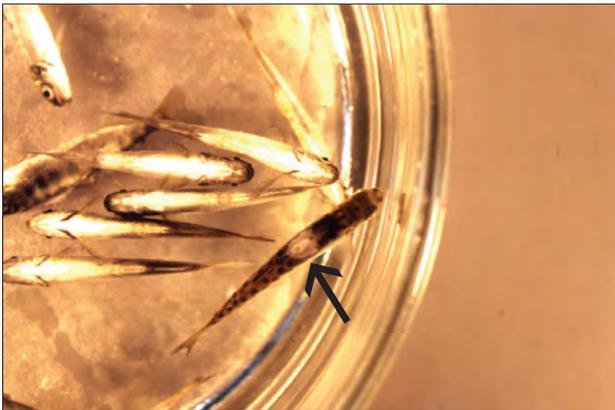
VII. Human Health Significance

There are no human health concerns associated with sunburn in fish.

NON-INFECTIOUS DISEASES



Sunburn lesion on dorsal surface of coho salmon with secondary infection by *Saprolegnia* water mold.



Sunburn lesion (arrow) eroding dorsal fin of a juvenile cultured Chinook salmon.