

Bloat (Water Belly)

I. Causative Agent and Disease

This is a non-infectious condition where the abdomen of salmonids is abnormally distended by an enlarged, water-filled stomach. The condition is most often seen in salmonids reared in seawater. The cause of this condition is not well understood, but potential variables may include: a combined failure of osmotic regulation, increased lipids, temperature and stress; increased drinking of seawater and nutrient overloading due to excessive feeding. In other words, ingestion of nutrient-rich food may result in slowed stomach emptying leading to decreased absorption of water, thirst and increased drinking that further exacerbates stomach distention.

II. Host Species

This condition is reported frequently in Chinook, coho, chum and Atlantic salmon and also in rainbow trout. Bloat in Alaska is most common in juvenile coho, but also observed in chum, pink and Chinook salmon.

III. Clinical Signs

Fish with bloat exhibit severe distention of the abdominal wall. Necropsy reveals a massively enlarged stomach with a very thin wall. The stomach is filled with a clear, watery fluid mixed with feed.

IV. Transmission

The disease is non-infectious and cannot be transmitted from fish to fish.

V. Diagnosis

Bloat is usually diagnosed by the presence of excessive amounts of clear, watery fluid in the stomach. The stomach wall is thinned from distension, but other significant histological changes are not present.

VI. Prognosis for Host

Although this condition can cause mortality, affected fish often survive for weeks. A reduced feeding regime after fish have been starved for several days or changing the composition of the food will reduce the problem in captive fish.

VII. Human Health Significance

There are no human health concerns associated with this condition.

NON-INFECTIOUS DISEASES



Chum salmon fry with swollen abdomen typical of bloat.



Chinook salmon smolt with swollen abdomen typical of bloat.