

Where have all the capelin gone?

Birds I View

Bill Montevecchi



Murre returning an egg-loaded female capelin to its hungry chick on Funk Island. (photo: Bill Montevecchi)

Life is all about timing. This is as true on a cellular level as it is on individual level. Timing is also a critical determinant of how things function throughout an entire ecosystem.

Fishermen are tuned to the arrival of herring, cod and capelin. Sealers are tuned to the arrival of harp seals on the Arctic pack ice in spring. Yet those who ply their trades in the ocean are keenly aware that in nature, things are variable and change is the rule rather than the exception.

Environmental changes and shifts necessitate that expectations be continually adjusted to present conditions. Those who work in the marine environment are well aware of signals of change.

Changing capelin conditions

In the marine environment of Newfoundland and Labrador, it seems that just about everything related to large marine animals is linked to the timing of capelin. The cod follow the inshore migration of capelin to our coasts, as do the whales. And seabirds are most successful when their hungry and demanding chicks hatch as the egg-carrying female capelin are arriving inshore.

But with capelin so out of time, what will be the consequences for the marine animals that depend on them? And what is it that determines the timing of capelin?

Clearly behavioural adjustments have to be made. This summer, it was clear that when capelin had not come inshore in eastern Newfoundland, they had in southern Labrador and on the Northern Peninsula. This was signalled by the abundances of whales in the more northerly inshore waters and their absence in more southerly areas. The seabirds in Witless Bay were not delivering capelin to their chicks.

But behavioural adjustments to shifts in food conditions also have tolerances which if exceeded force changes of much greater proportions. Those old enough to have the memory might note the virtually absence of pothead or pilot whales in our waters since the 1980s. These squid-eating marine mammals have simply not moved into the region in the continued absence of robust squid stocks.

Bottom-up influences

The extremely late timing of capelin spawning on the east coast of Newfoundland this summer was reminiscent of 1991, when the little beach spawning was delayed by weeks. In the early 1990s, there were massive and widespread breeding failures of many seabirds. The cod had been fished to commercial extinction, and the remnants had to contend with frigid water and the delayed arrivals of small capelin.

There were signals of this summer's dismal capelin conditions during DFO's spring surveys. The capelin were very difficult to find and those few that were found were in poor condition. To understand how this might have occurred, we have to look further down the food web and consider the state of the capelin's food base.

Could it be that the ocean climate changes that have been occurring have affected the krill base on which the capelin depend? We don't know, but we urgently need to. Perturbations low on a food web can have very serious implications for the larger animals that are dependent on the smaller ones for food. We should be looking with keen interest to the findings from DFO's fall research surveys of capelin and their prey bases. Stay tuned.

Who killed the Grand Banks?

Axel Rose's book "Who Killed the Grand Banks" has received relatively little local attention. Perhaps reflective of this, the book offers a refreshing insight into the political and industrial dimensions that hammered the final Canadian and Newfoundland nails into the coffin of the northern cod. Oftentimes it takes a come-from-away to see things clearly and to blow the fog from local hoopla. Axel Rose has done this very admirably, and if you are tired of hearing foreigners and seals lambasted in lieu of home-grown responsibility and stewardship, Axel Rose's message can help. If you don't want to get fooled again and again and again, read this book.

Reading this book has also impressed on me how the BBC "People of the Sea" video got this story right well over a decade ago. The production won numerous awards for best wildlife documentary of the year, though it was not very popular with the provincial fisheries minister at the time who also wasn't a big fan of seals either. Heck – I'm sending a copy of the video to Mr. Rose.

Birds in and around the area

On 8 September, US Fish and Wildlife Service biologists visiting Matinicus Rock, an island off the Maine coast, discovered a fledgling Manx Shearwater. This is the first record of this species to successfully rear a chick to juvenile age in the USA.

Lester Rees emailed me some striking images of a lark sparrow visiting his feeders with a host of other sparrows in Whitbourne. Fall rarities are in the bush and being searched out in coastal alders and tuckamoors. You may want to join the hunt.

Snow buntings are taking up winter residences on the coastal berry barrens at Cape St. Francis (Janet Montevicchi) and Cape Bonavista (Jon Joy) Berry-pickers and birds are sharing their autumn harvests.

The powerful easterly gales of mid-October are transporting many birds species to the coasts. Dave Brown was overwhelmed with about 100 oceanic jaegers, a skua, flocks of phalaropes, sandpipers, storm-petrels and a purple martin in Holyrood on 14 October.

Keep picking and looking.

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