

August 5, 2018

Hello puffin cam fans,

As usual, this puffin season is packed with drama, but as we focus on the inside view of our single burrow, let me share a few thoughts to add perspective. While this season is not yet over and the fishing fortunes of puffins could still improve there is of late a shortage in the amount of food coming into puffin chicks. At Seal Island NWR it was a big surprise that haddock dominated the puffin chick diet early in the nesting season. Herring and sand lance (both high quality fish) were nearly completely missing; likely white hake (which normally is the most common food) was a far second choice. We first noticed Haddock in Maine puffin diet in 2010 and it has been a regular part of the diet since then- but nothing like this summer. The increase in haddock is likely due to the rebounding of this species from the overfishing days prior to the Magnuson-Stevens Act of 1976. This is all good news for puffins, but the Magnuson-Stevens Act is presently under challenge in congress. Ten other previously overexploited New England fish have also increased.

The haddock surge was great news while it lasted, but beginning in mid-July, haddock and other small fish apparently became less abundant near the nesting islands, resulting in a decline in the number of feedings per day and slower growth rate. With abundant food, puffins can fledge in 40-45 days, but when food is scarce, the fledging period can extend to 60 or more days. That is why puffling Grace still sports much of her natal down. In fact, most of the puffin chicks this year at both Seal Island NWR and Matinicus Rock are developing slower than usual because they are not getting as much food as in good years. While puffins have the ability to slowly develop, it is not ideal as chicks that fledge with lower than average fledging weights have a reduced chance of surviving at sea.

I like the phrase someone on the chat came up with 'Trust in Puffins.' Willie and Billie will do their best to raise Grace to fledging age and give her the best chance to fledge in good condition. But they won't compromise their own well-being if the going gets too tough. To me 'trusting in puffins' means realizing that puffins know when to make the tough decision between care of their chick vs care of themselves. Puffins are long-lived birds, capable of living 30 or more years. Somehow, they know when it is too difficult to find sufficient fish for their chick without risking their own health. In Iceland and Norway, there are huge colonies of puffins that have not bred successfully in ten or more years due to insufficient food for chicks. But they keep trying, even as numbers diminish.

Which brings me to the most important point- why is it that food varies so much from year to year? This is complicated, but it certainly has a lot to do with fisheries and climate change. Advocating for leaving enough fish in the sea for puffins and other marine fish-eating birds is key. Ecological based regulations that include the needs of puffins and other marine predators are finally beginning to be part of the fisheries discussion, but regulators need to know that bird enthusiasts care and have a voice.

Climate change is hard for some to visualize, but watching individual animals like Grace and her family struggle to find ample food makes it easier to see. Sea surface temperature (SST) is one of

the best indications of puffin food supplies and July SST at Seal Island was about 2 degrees warmer than in 2017. This is important because fish will move to deeper water and further from nesting islands when water warms more than usual. People are causing the planet to warm, but we can also make choices that will help. We can advocate for smarter fish management and we can make a difference about climate through advocating, voting and taking personal actions. Talking to people who do not see the link between humans and climate change has never been more important. I hope that passion for puffins and concern for Grace will lead to more viewers taking action toward reducing the effects of climate change and supporting sustainable fisheries. Then we will be doing our part in saving puffins and healthy oceans. If you are not already signed up for our newsletters and call for action to help seabirds, here is the link:  
<https://act.audubon.org/onlineactions/Ay08nyLN60S1ZeWUSA7qYA2>

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