

Kolarctic CBC – Project KO4178; Conserving our Atlantic salmon as a sustainable resource for people in the North; fisheries and conservation in the context of growing threats and a changing environment.

Report XII. Median dates of capture and cumulative catches are indicating clear variations in the migration periods between small, medium and large salmon and in the salmon fishery practices between municipalities in Northern Norway in Finnmark

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3) County Governor of Troms and Finnmark; Vadsø, Norway



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<p>Report XII. Median dates of capture and cumulative catches are indicating clear variations in the migration periods between small, medium and large salmon and in the salmon fishery practices between municipalities in Northern Norway in Finnmark</p> <p>Niemelä ^{1,2}, E., Hassinen^{1,2}, E., Høstmark-Solheim³, M., Kalske³, T.H</p> <p>¹⁾ Biodiversity Unit, University of Turku; Turku, Finland ²⁾ Firm Olli van der Meer; Oulu; Finland ³⁾ County Governor of Troms and Finnmark; Vadsø, Norway</p>	
<p>Abstract</p> <p>Daily salmon catches for small, medium and large salmon make it possible to analyze long-term changes in the median date of capture within and between areas more precisely than the weekly catches from the accumulated data. Daily accumulation of catches for small, medium and large salmon presented with cumulative curves or with median dates of capture makes it more accurately to observe temporal and spatial differences in the timing of catches. Median dates of capture and cumulative catch curves are differing significantly between municipalities in Finnmark and these differences are valid for small, medium and large salmon. Generally, median dates of capture for small, medium and large salmon are varying temporally and simultaneously in the municipalities. In the same way. Temporal changes in the median dates of capture are caused by normal variations in the annual migration timing of salmon caused for example by sea temperatures. Changes in fishing restrictions like the start and closing date in fishing and allowed fishing days weekly are affecting the cumulative catch curves and thus also the median date of capture.</p>	
<p>Key words:</p> <p>Median capture date, cumulative catches, salmon migration, Atlantic salmon, <i>Salmo salar</i>, Finnmark</p>	
<p>Front page photo:</p> <p>Eero Niemelä</p>	

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1. Median dates of salmon capture for small, medium and large salmon in the years 2013-2021 in Finnmark municipalities

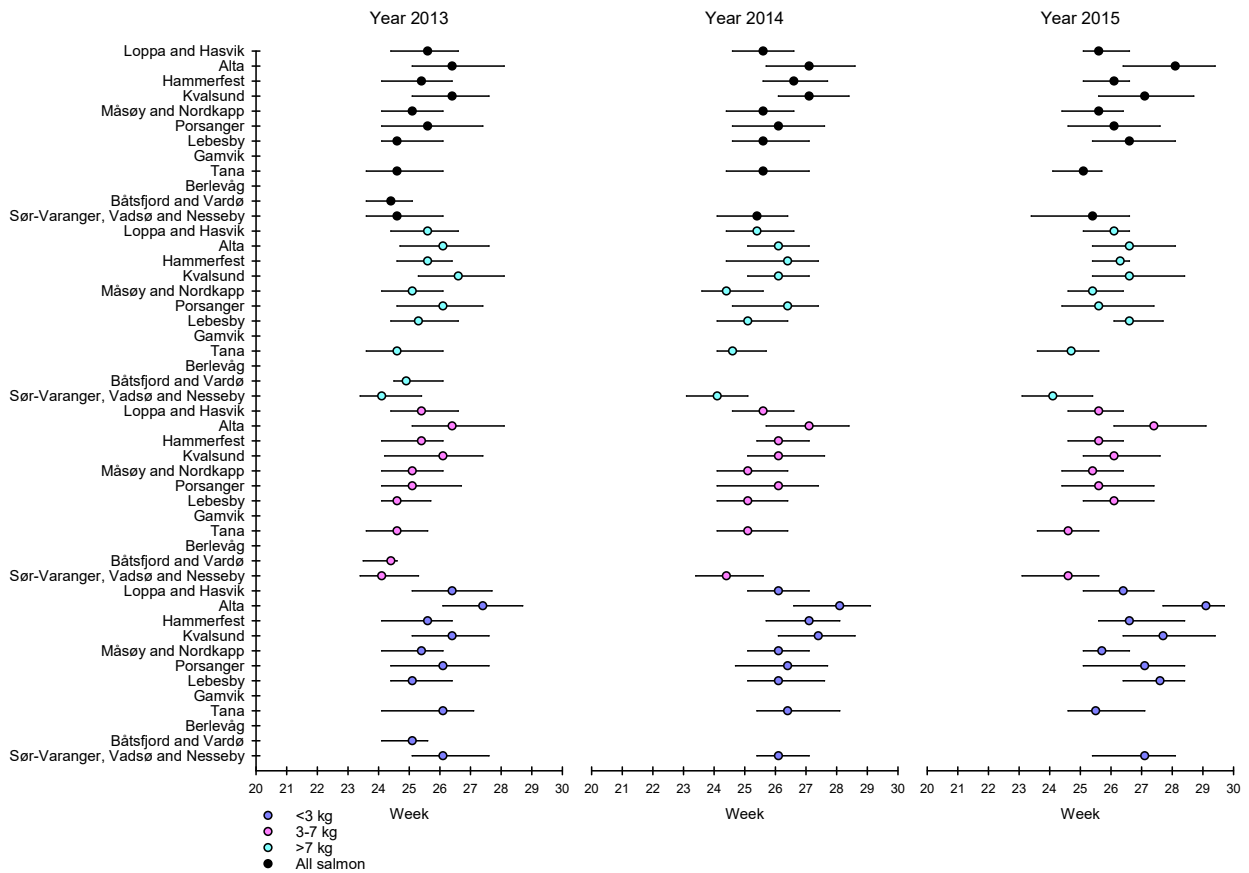


Figure 1. Median dates of salmon capture with lower and upper quartiles for small, medium and large salmon in the years 2013-2015 in Finnmark municipalities. Source; SSB

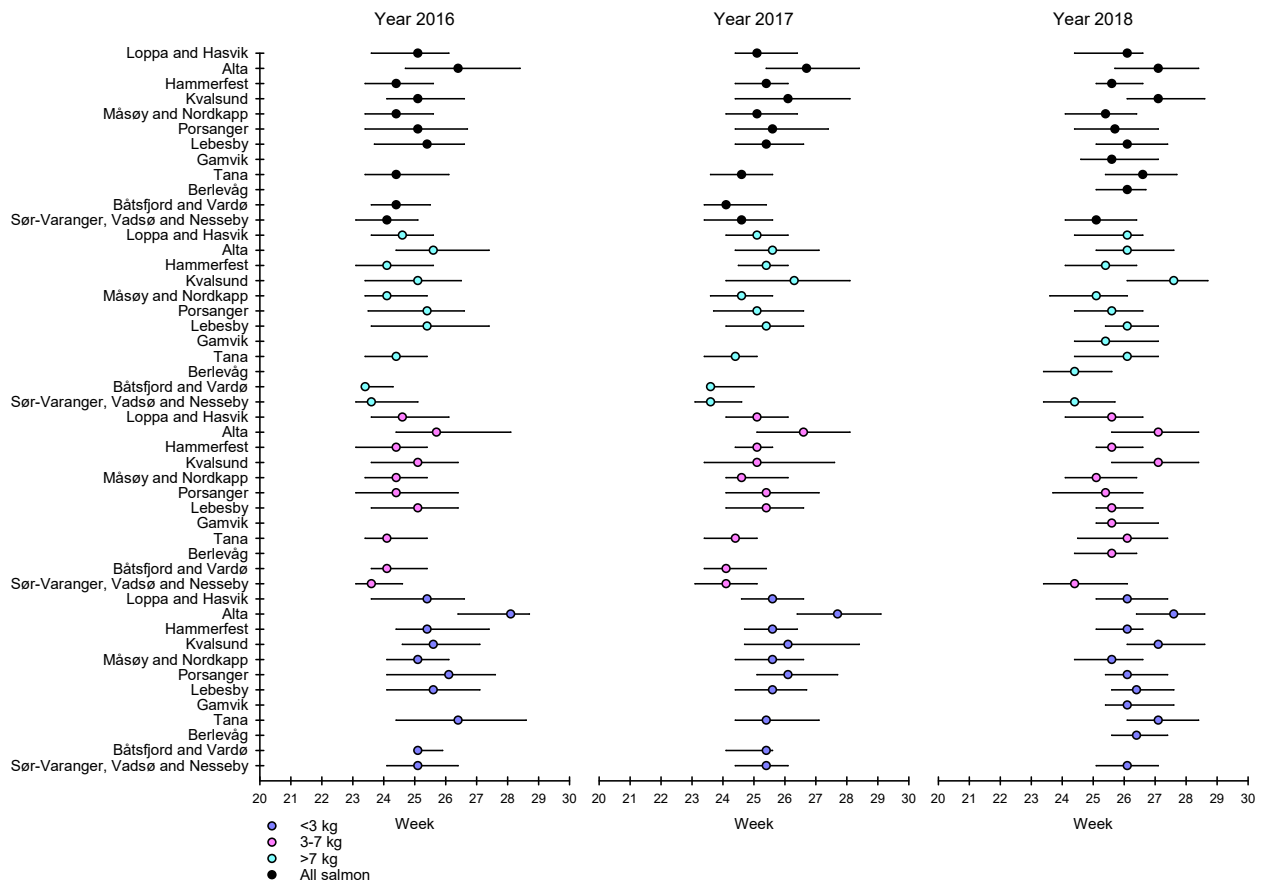


Figure 2. Median dates of salmon capture with lower and upper quartiles for small, medium and large salmon in the years 2016-2018 in Finnmark municipalities. Source; SSB

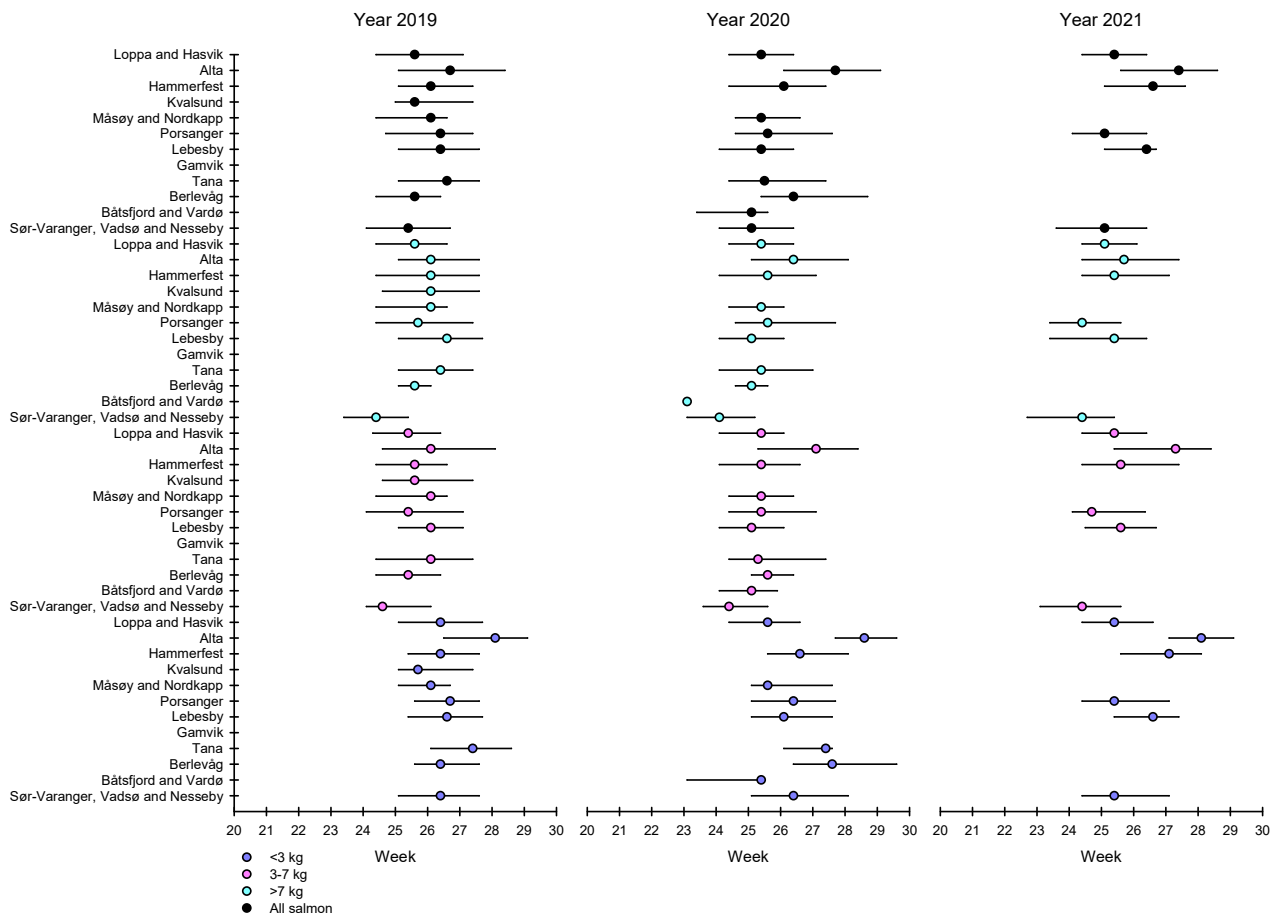


Figure 3. Median dates of salmon capture with lower and upper quartiles for small, medium and large salmon in the years 2019-2021 in Finnmark municipalities. Source; SSB

2. Long-term annual variations in the median dates of capture between Loppa and Hasvik, Alta, Hammerfest and Kvalsund municipalities

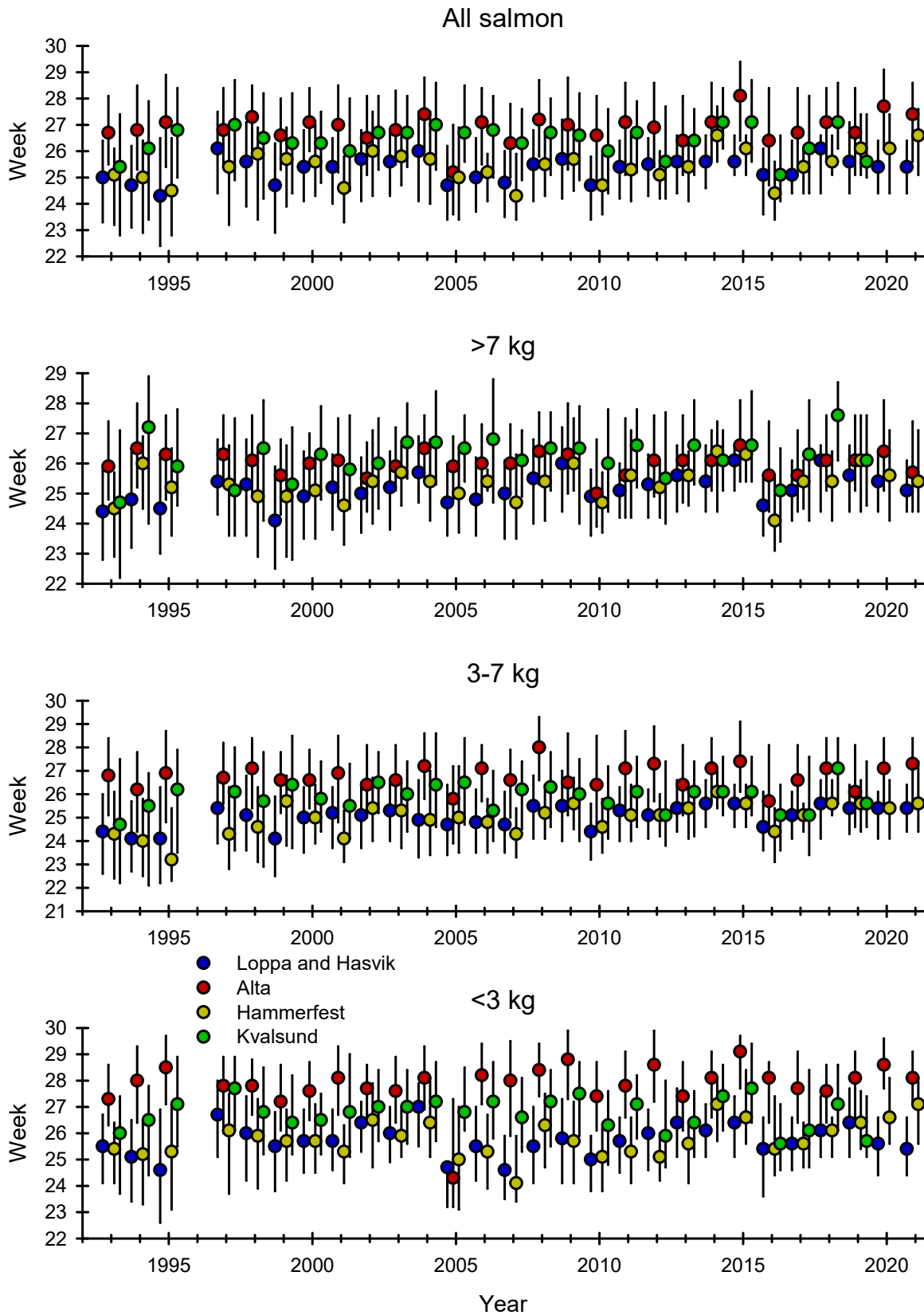


Figure 4. Long-term annual variations in the median dates of capture with lower and upper quartiles between Loppa and Hasvik, Alta, Hammerfest and Kvalsund municipalities in the years 1993-2021. Source; SSB

3. Long-term annual variations in the median dates of capture between Måsøy and Nordkapp, Porsanger and Lebesby municipalities

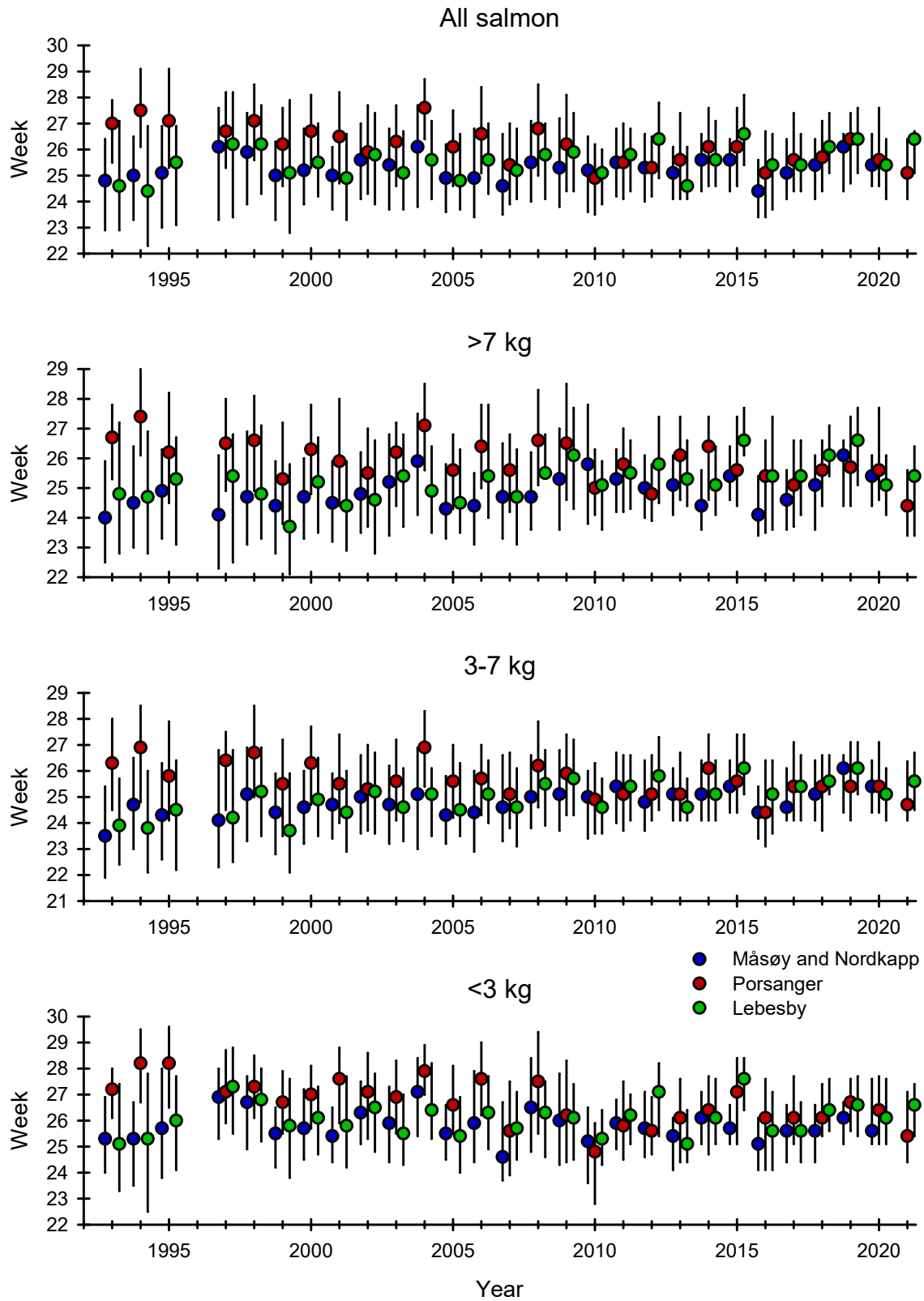


Figure 5. Long-term annual variations in the median dates of capture with lower and upper quartiles between Måsøy and Nordkapp, Porsanger and Lebesby municipalities in the years 1993-2021. Source; SSB

4. Long-term annual variations in the median dates of capture between Gamvik, Tana and Berlevåg municipalities

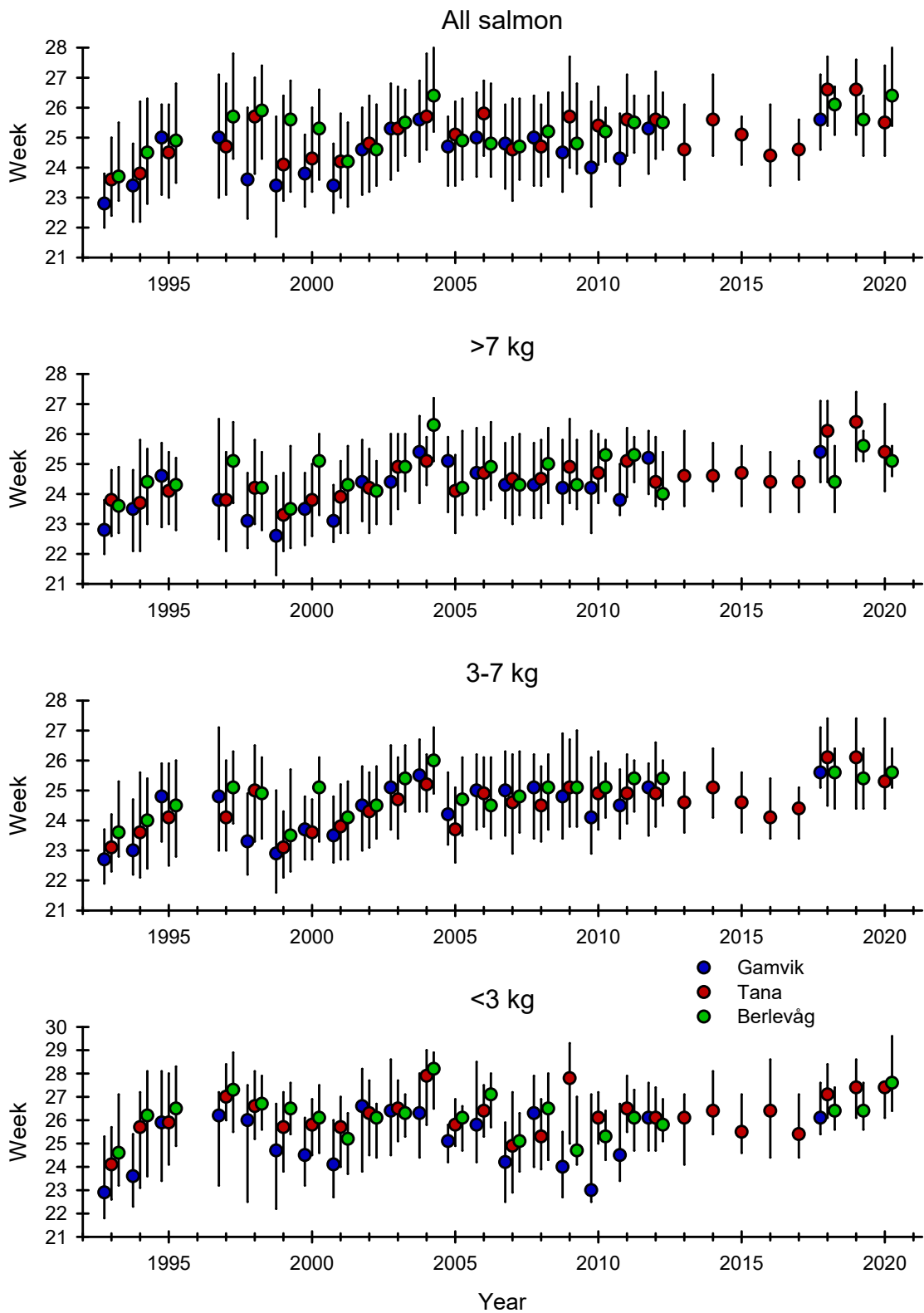


Figure 6. Long-term annual variations in the median dates of capture with lower and upper quartiles between Gamvik, Tana and Berlevåg municipalities in the years 1993-2020. Source; SSB

5. Long-term annual variations in the median dates of capture between Vardø and Båtsfjord and Vadsø, Nesseby and Sør-Varanger municipalities

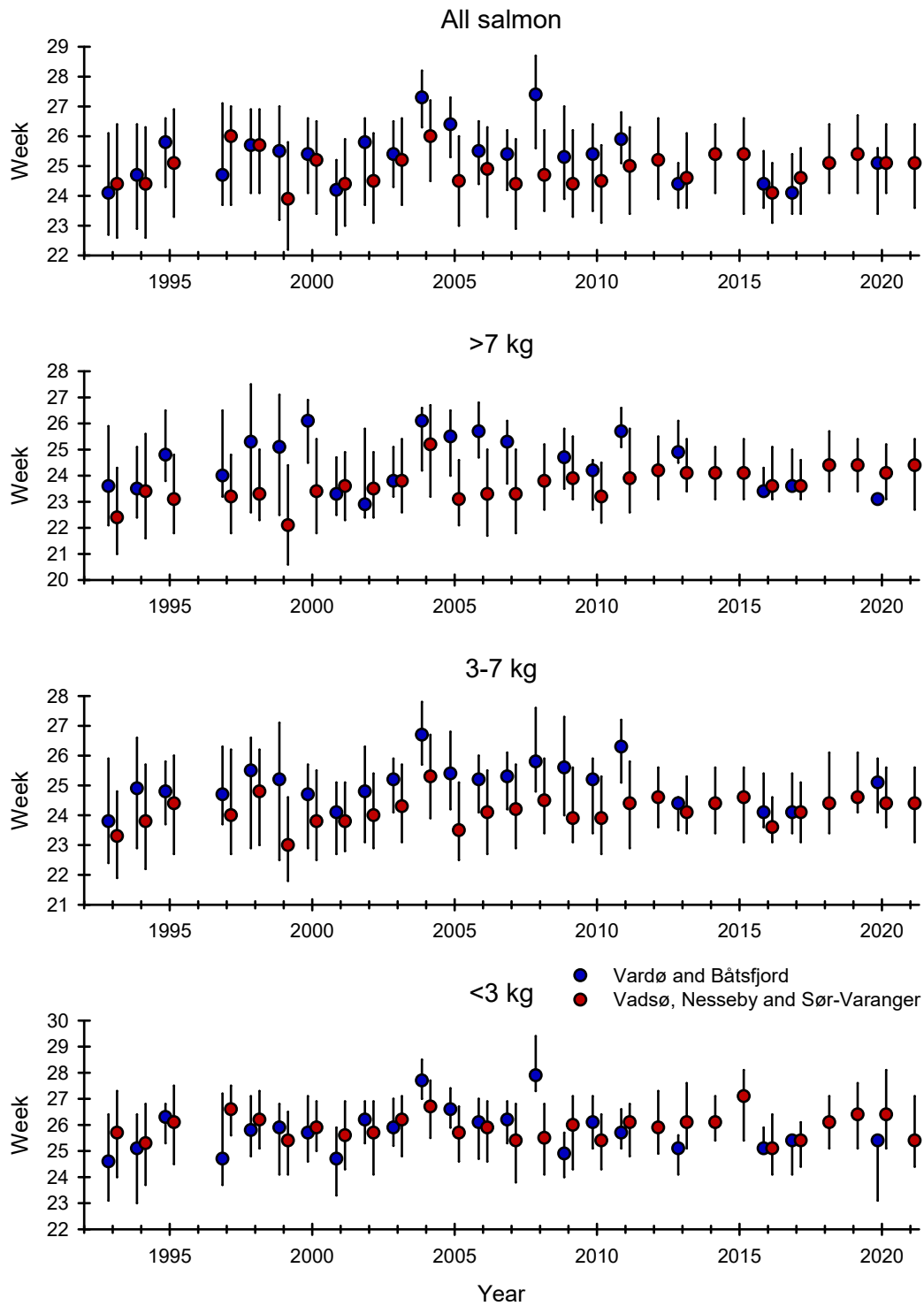


Figure 7. Long-term annual variations in the median dates of capture with lower and upper quartiles between Vardø and Båtsfjord and Vadsø, Nesseby and Sør-Varanger municipalities in the years 1993-2021. Source; SSB

6. Long-term annual variations in the median dates of capture for small, medium and large salmon in municipalities in Finnmark

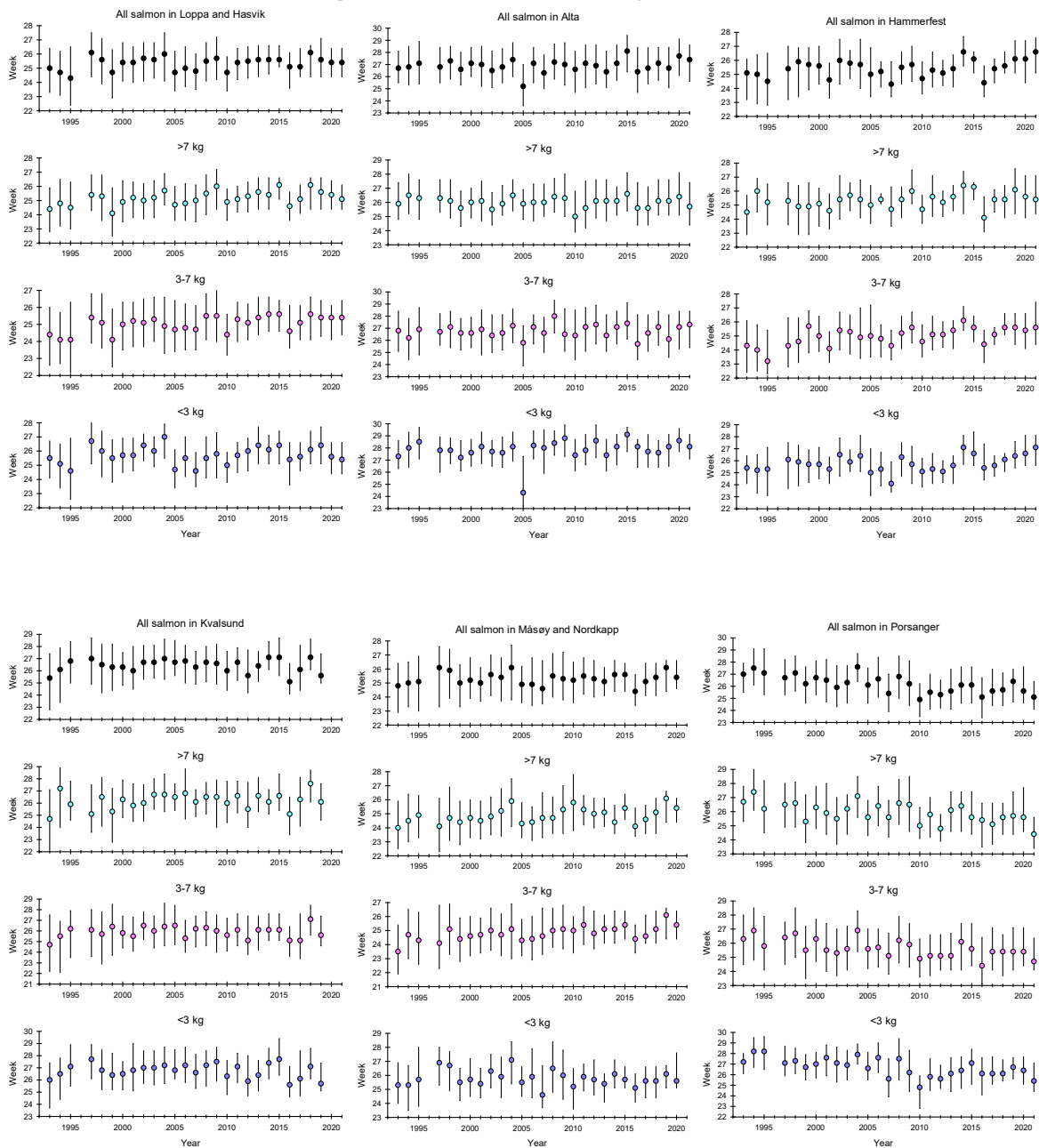


Figure 8. Long-term annual variations in the median dates of capture with lower and upper quartiles in municipalities in Finnmark in the years 1993-2021. Source; SSB

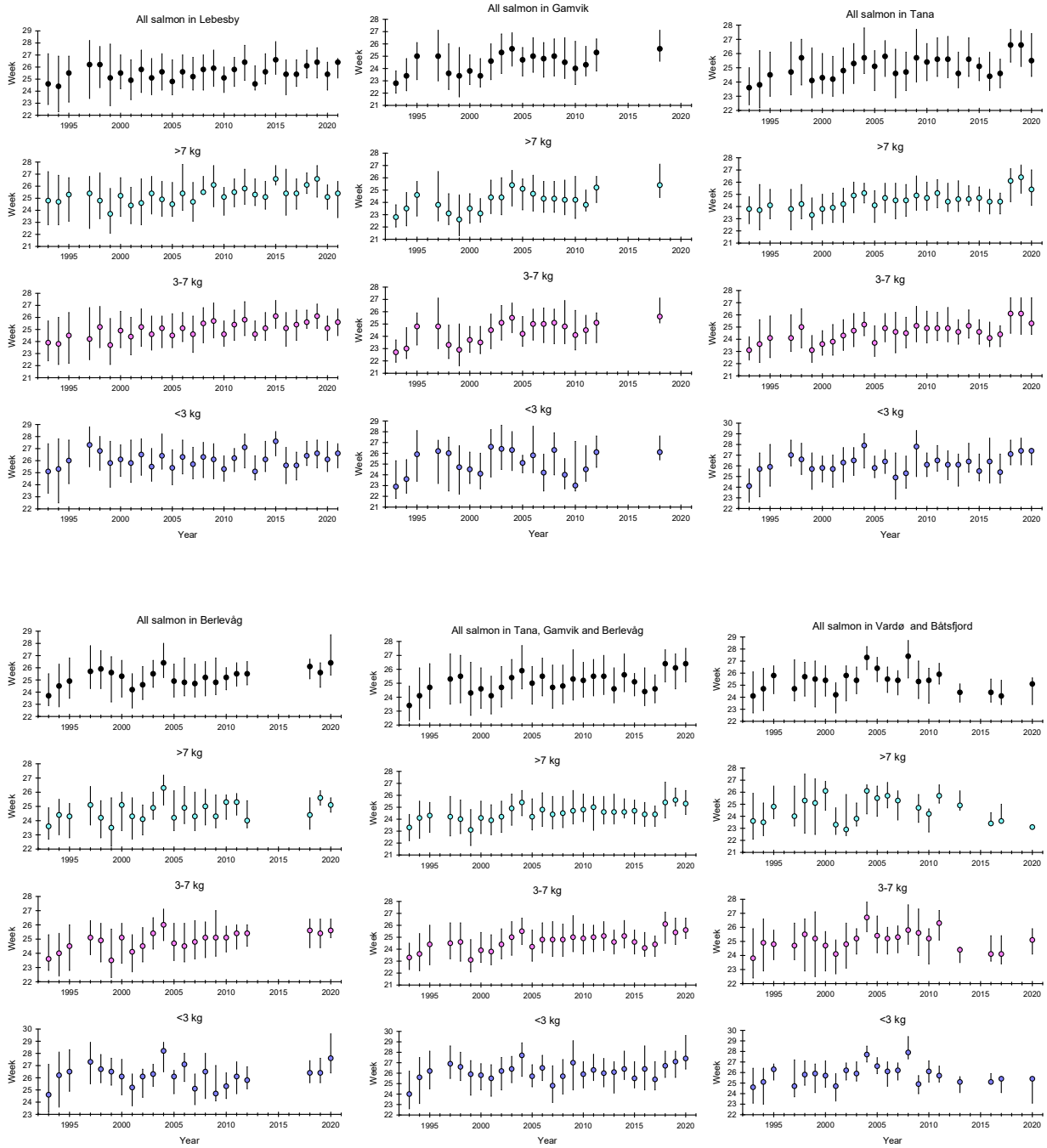


Figure 9. Long-term annual variations in the median dates of capture with lower and upper quartiles in municipalities in Finnmark in the years 1993-2021. Source; SSB

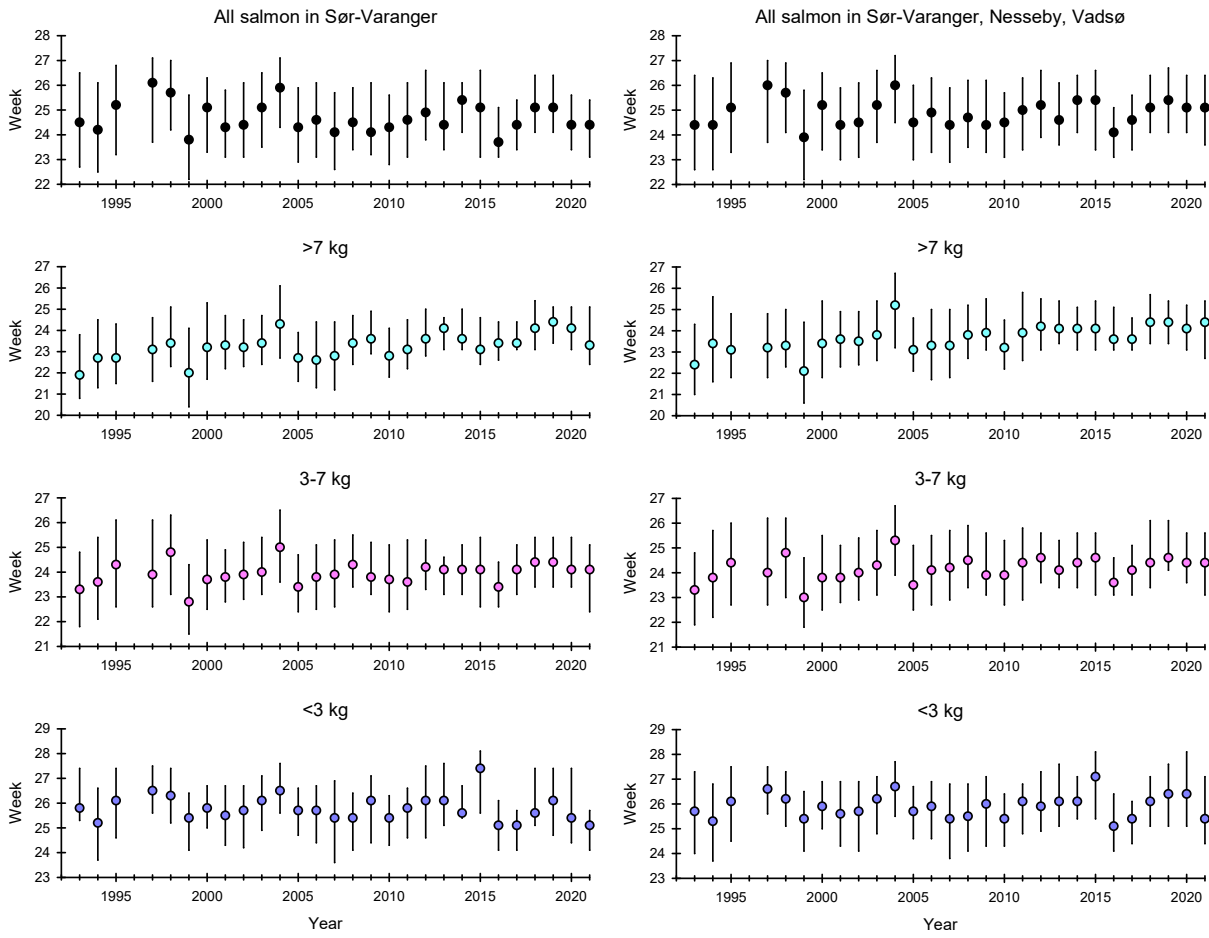


Figure 10. Long-term annual variations in the median dates of capture with lower and upper quartiles in municipalities in Finnmark in the years 1993-2021. Source; SSB

7. Annual cumulative catches for small, medium and large salmon in municipalities in Finnmark

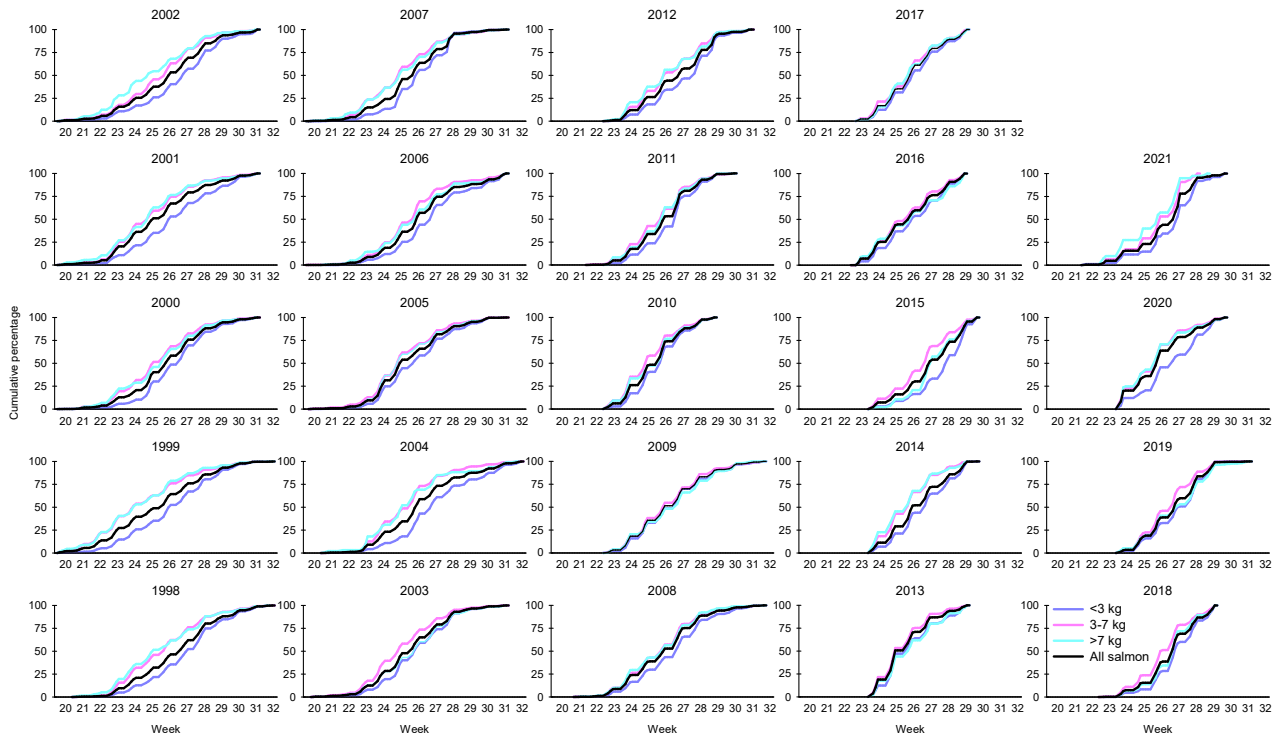


Figure 11. Annual cumulative catches (%) for small, medium and large salmon in Loppa municipality in the years 1998-2021. Source; SSB

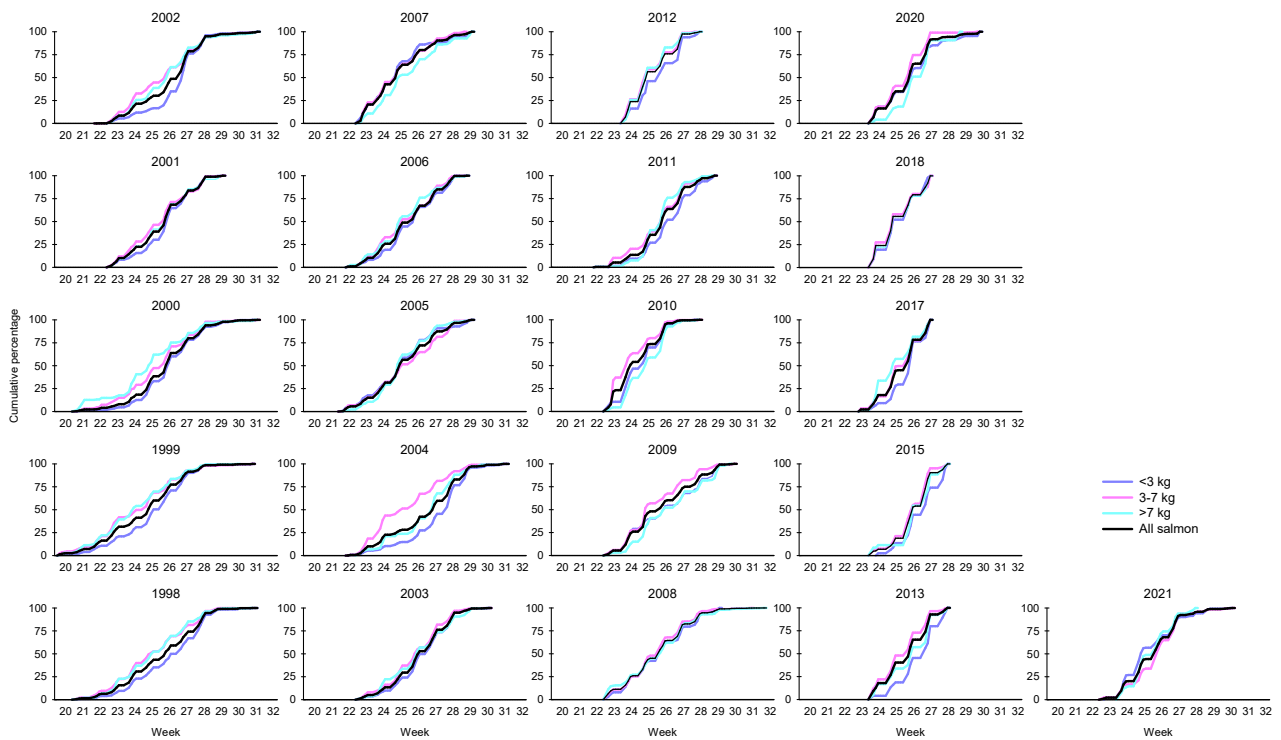


Figure 12. Annual cumulative catches (%) in Hasvik municipality in the years 1998-2021. Source; SSB

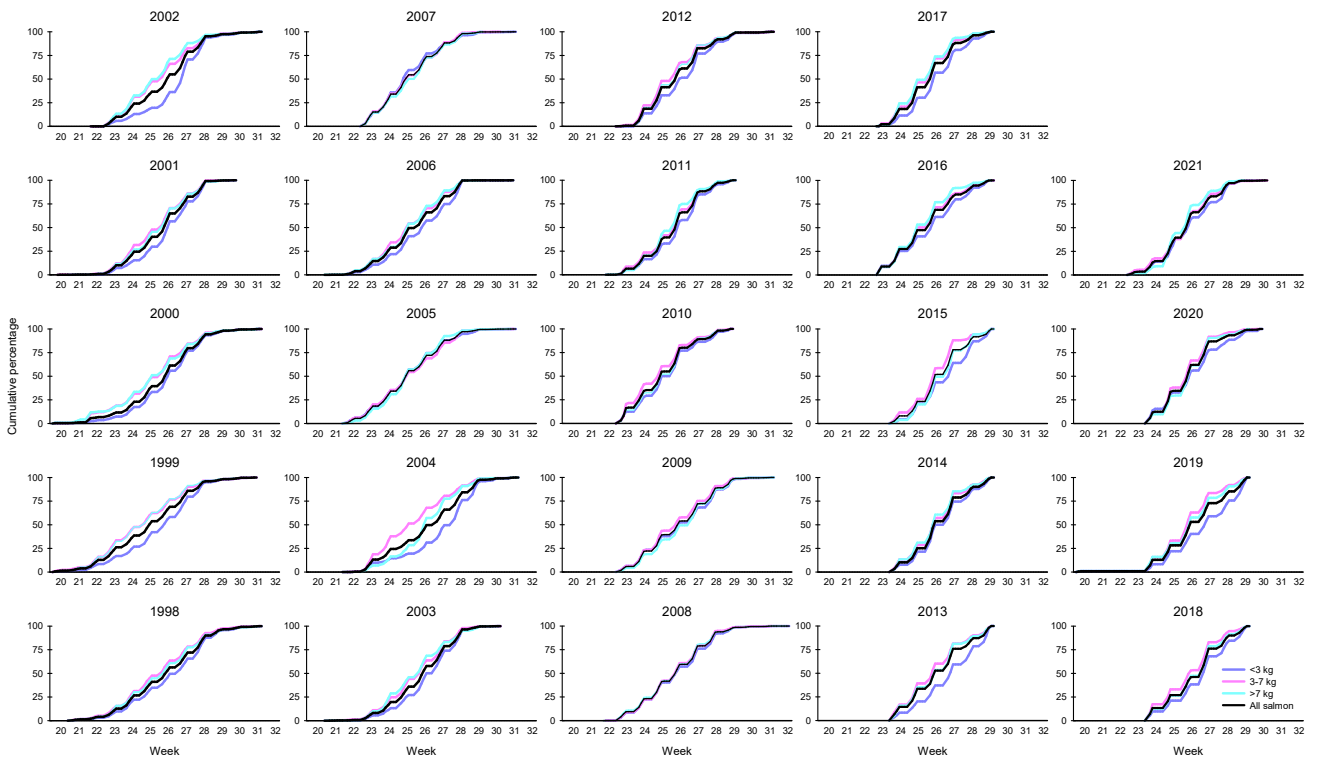


Figure 13. Annual cumulative catches (%) in Loppa and Hasvik municipalities in the years 1998-2021. Source; SSB

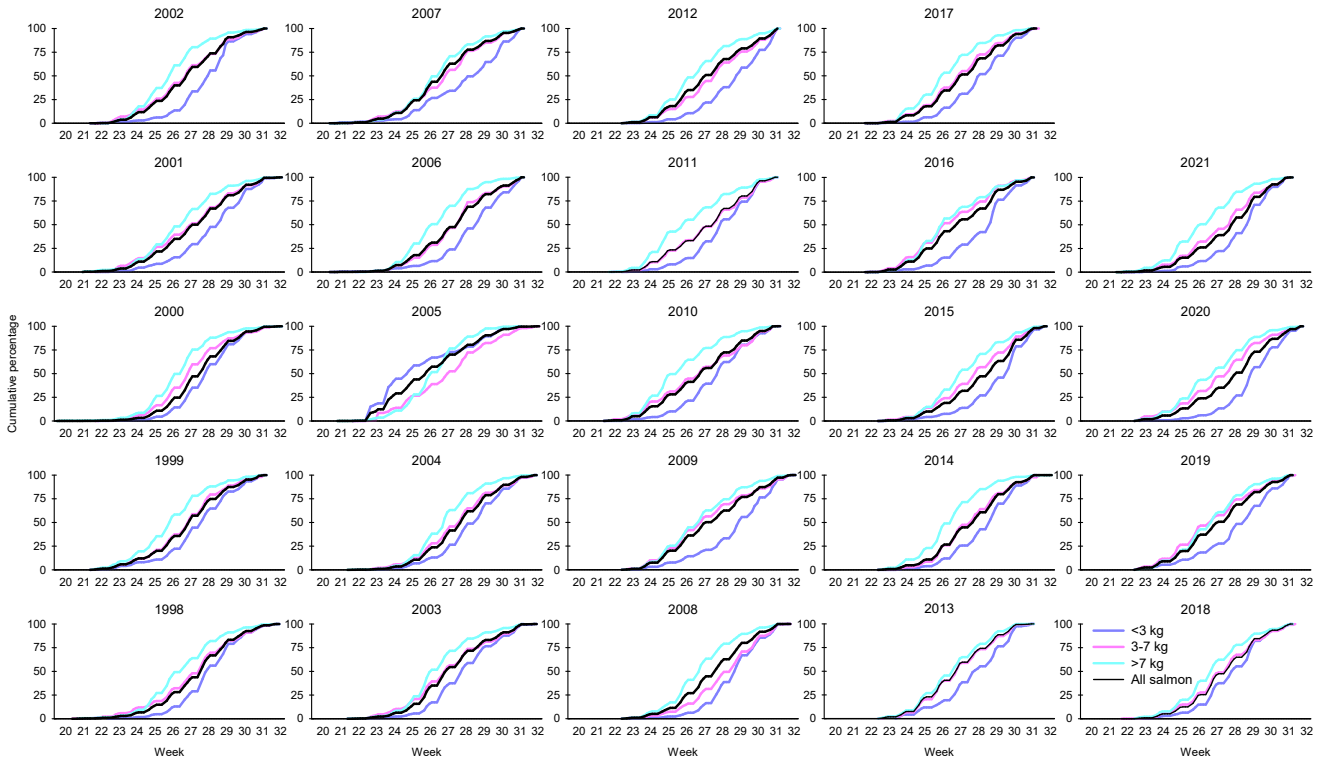


Figure 14. Annual cumulative catches (%) in Alta municipality in the years 1998-2021. Source; SSB

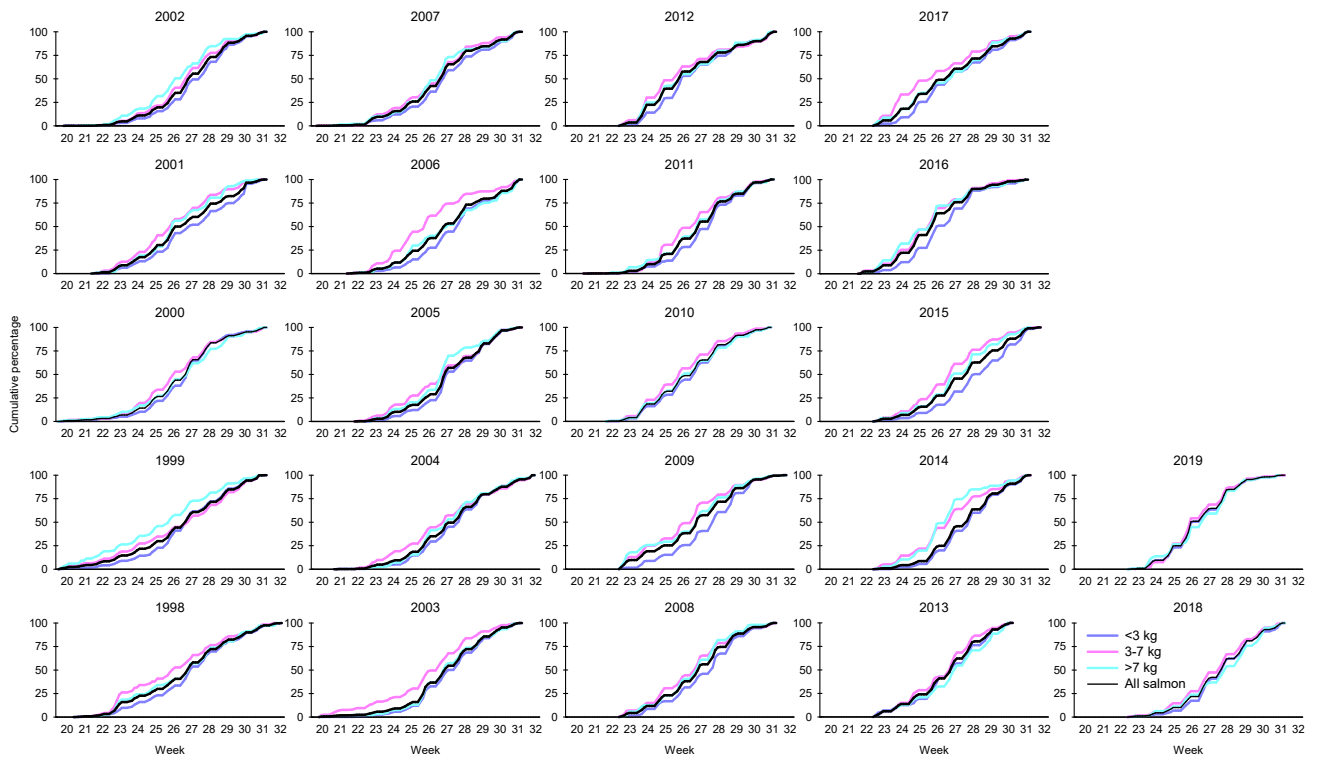


Figure 15. Annual cumulative catches (%) in Kvalsund municipality in the years 1998-2019. Source; SSB

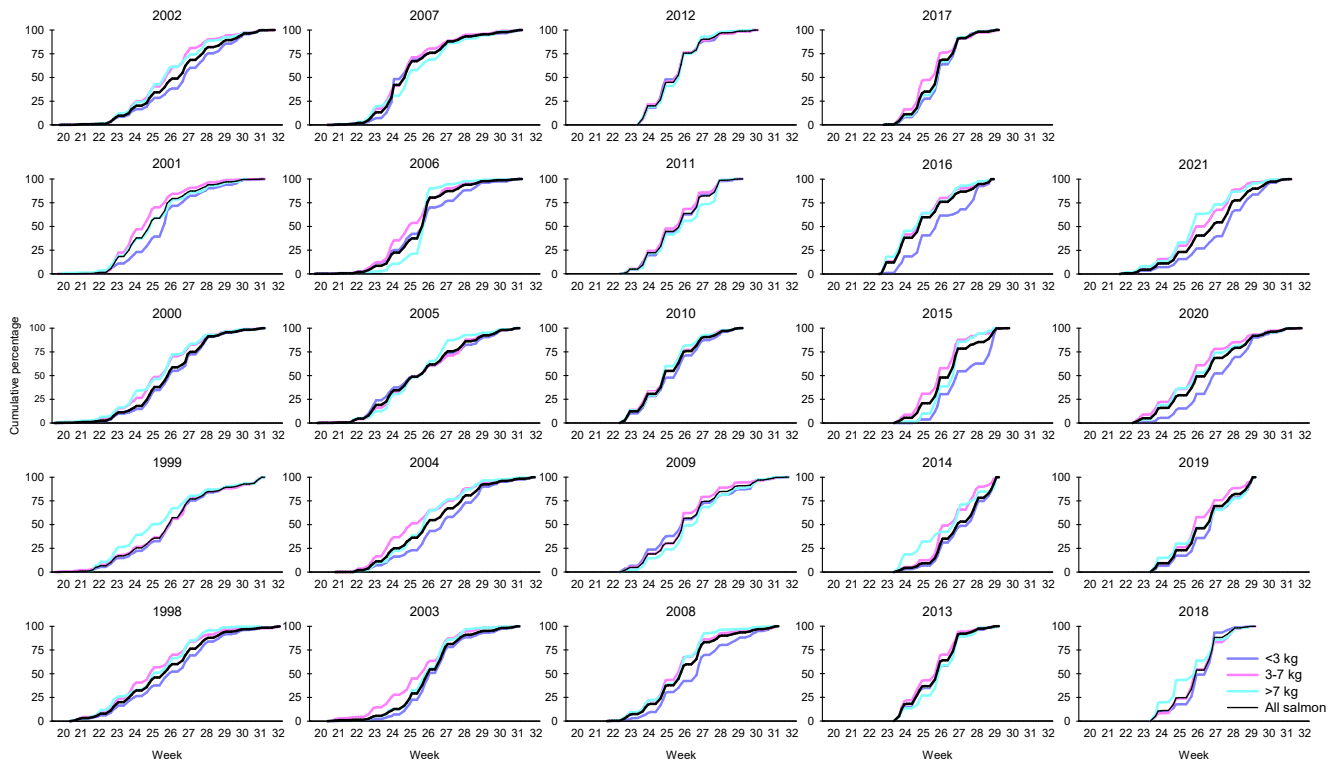


Figure 16. Annual cumulative catches (%) in Hammerfest municipality in the years 1998-2021. Source; SSB

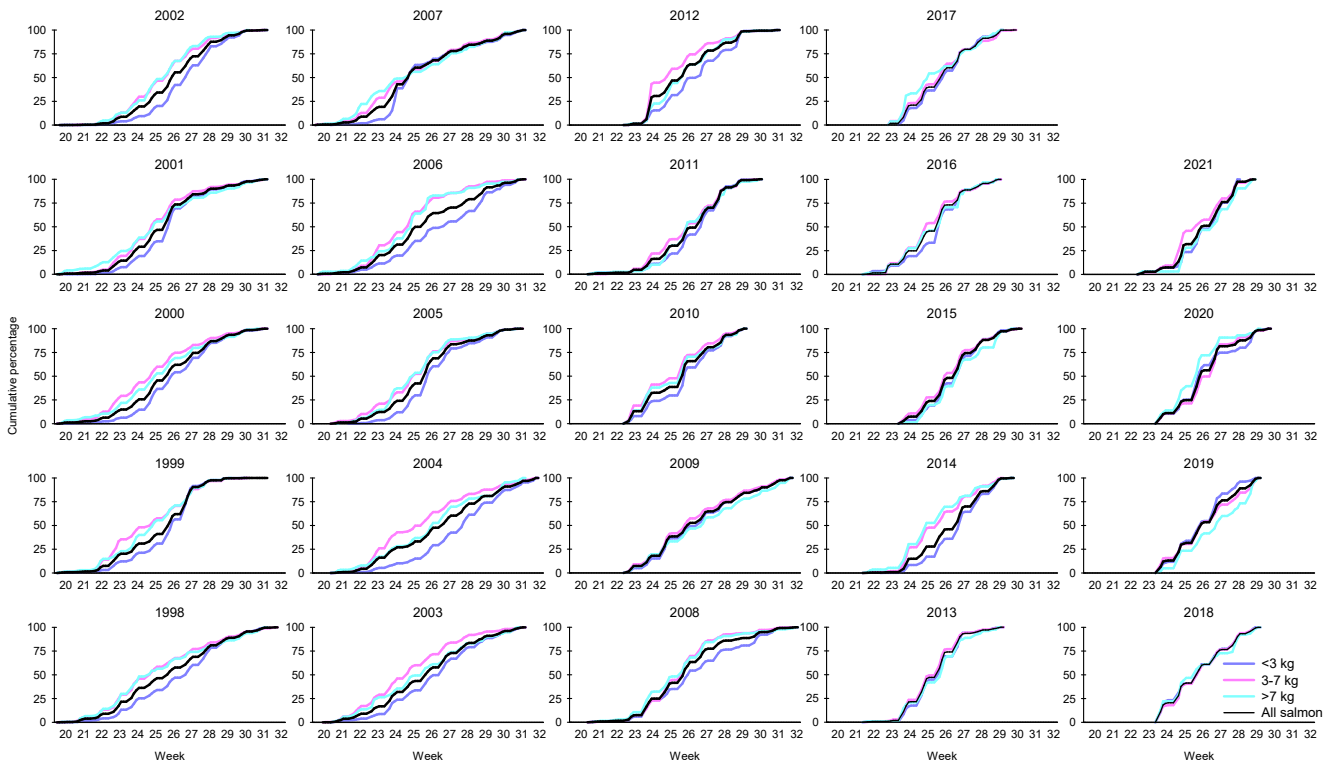


Figure 17. Annual cumulative catches (%) in Måsøy municipality in the years 1998-2021. Source; SSB

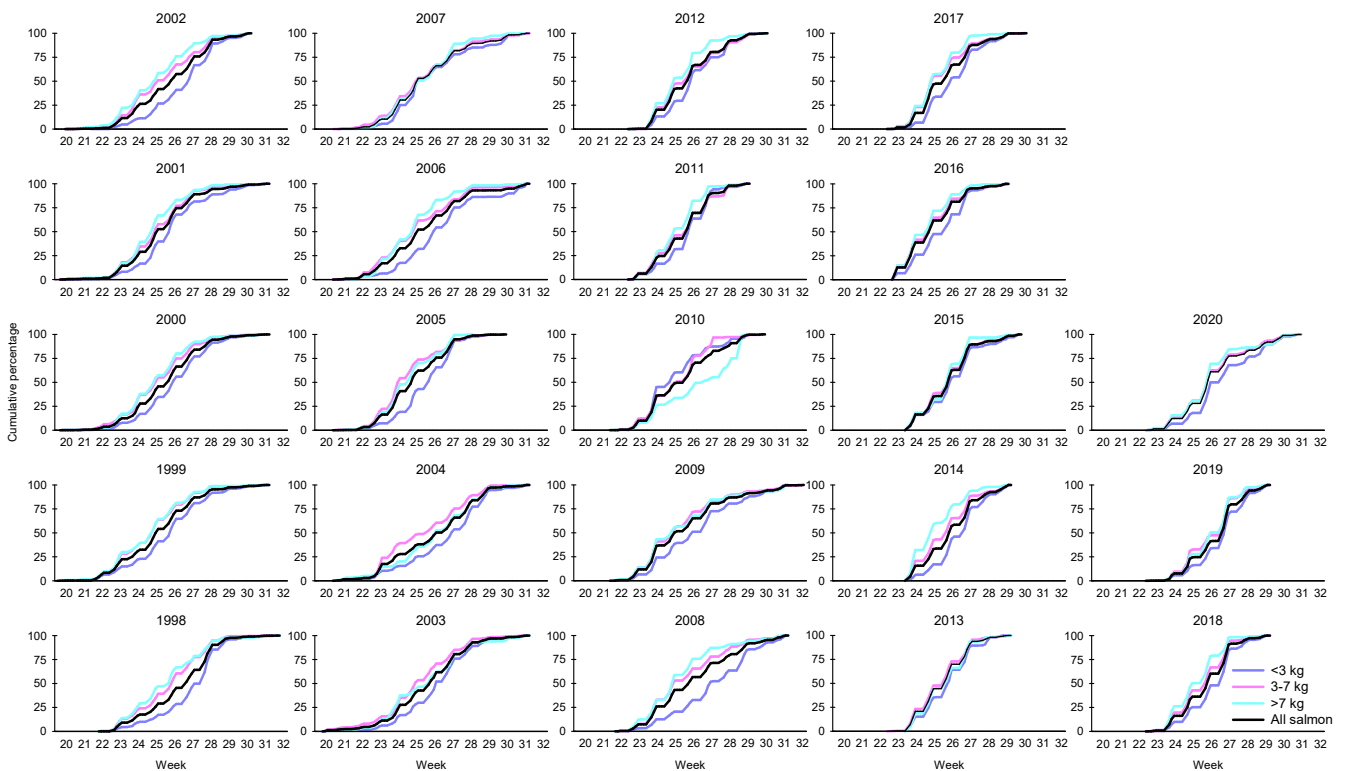


Figure 18. Annual cumulative catches (%) in Nordkapp municipality in the years 1998-2020. Source; SSB

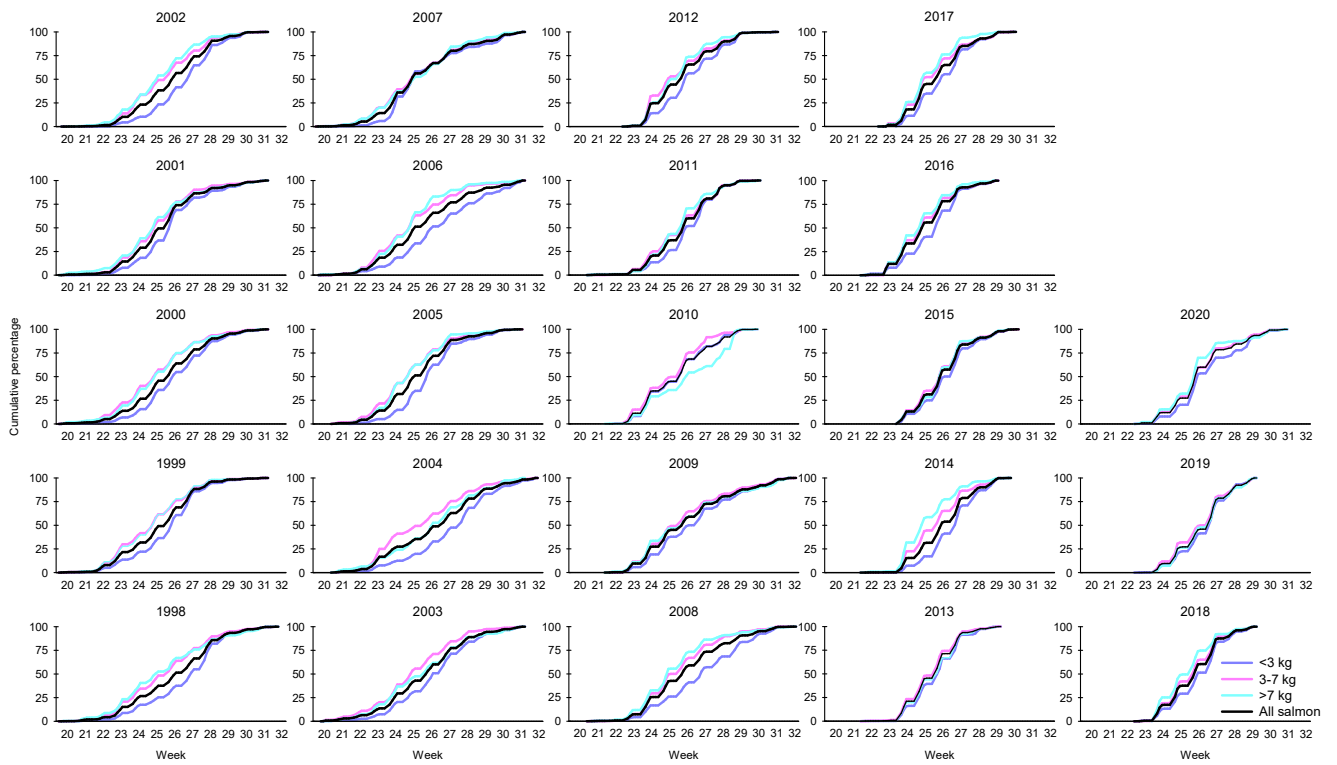


Figure 19. Annual cumulative catches (%) in Måsøy and Nordkapp municipalities in the years 1998-2020. Source; SSB

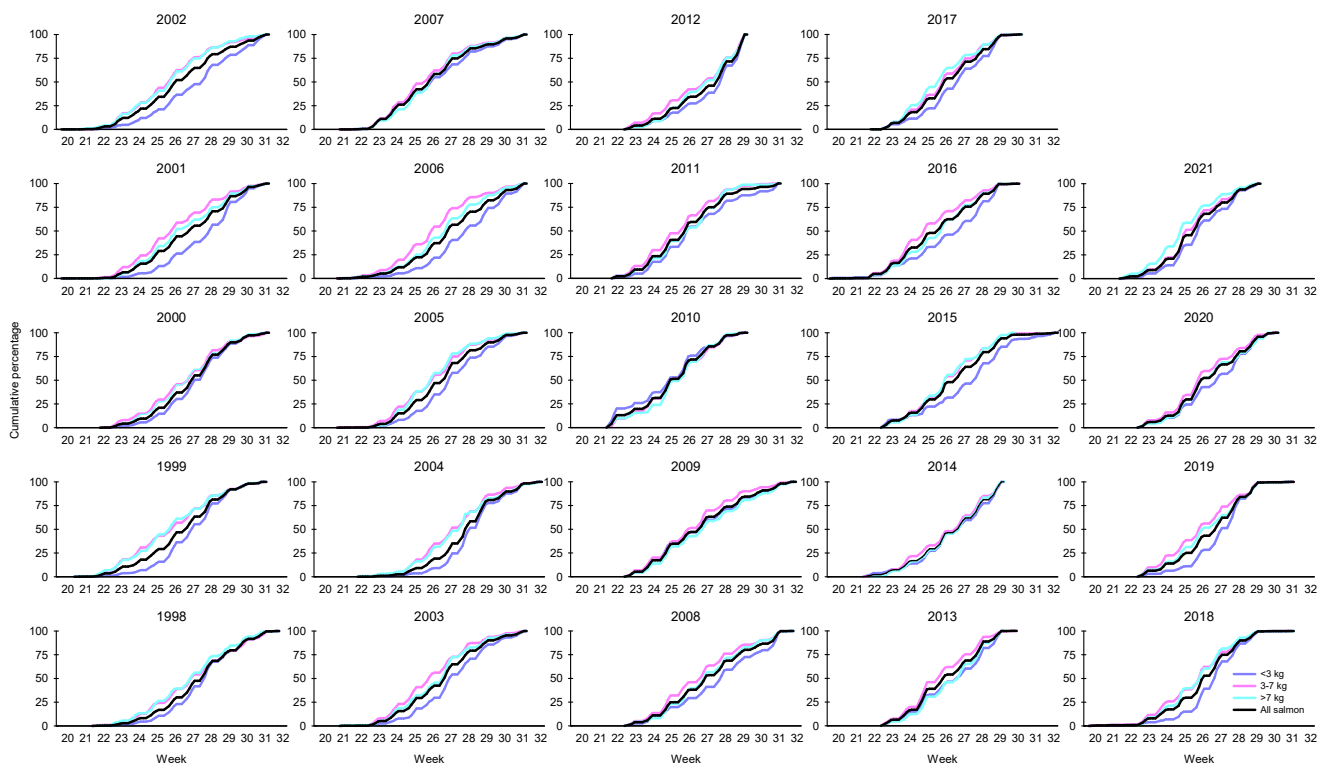


Figure 20. Annual cumulative catches (%) in Porsanger municipality in the years 1998-2021. Source; SSB

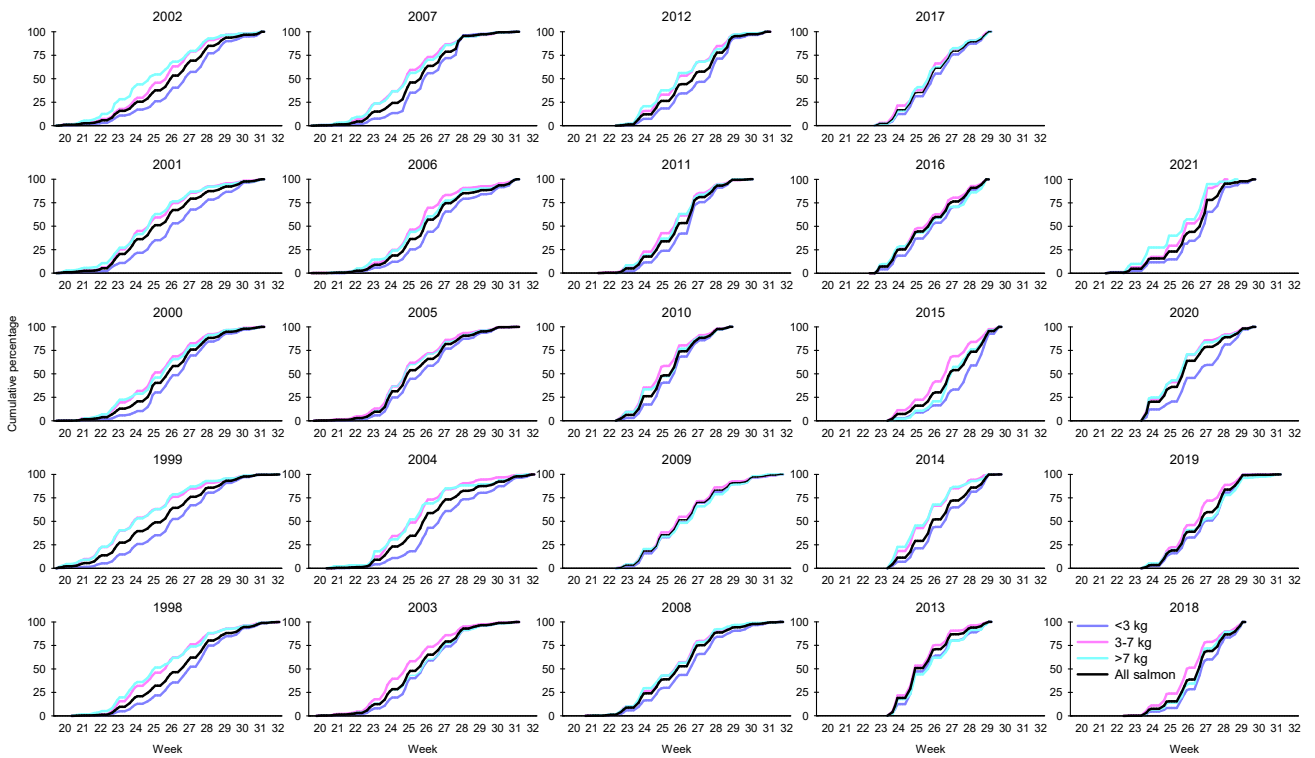


Figure 21. Annual cumulative catches (%) in Lebesby municipality in the years 1998-2021. Source; SSB

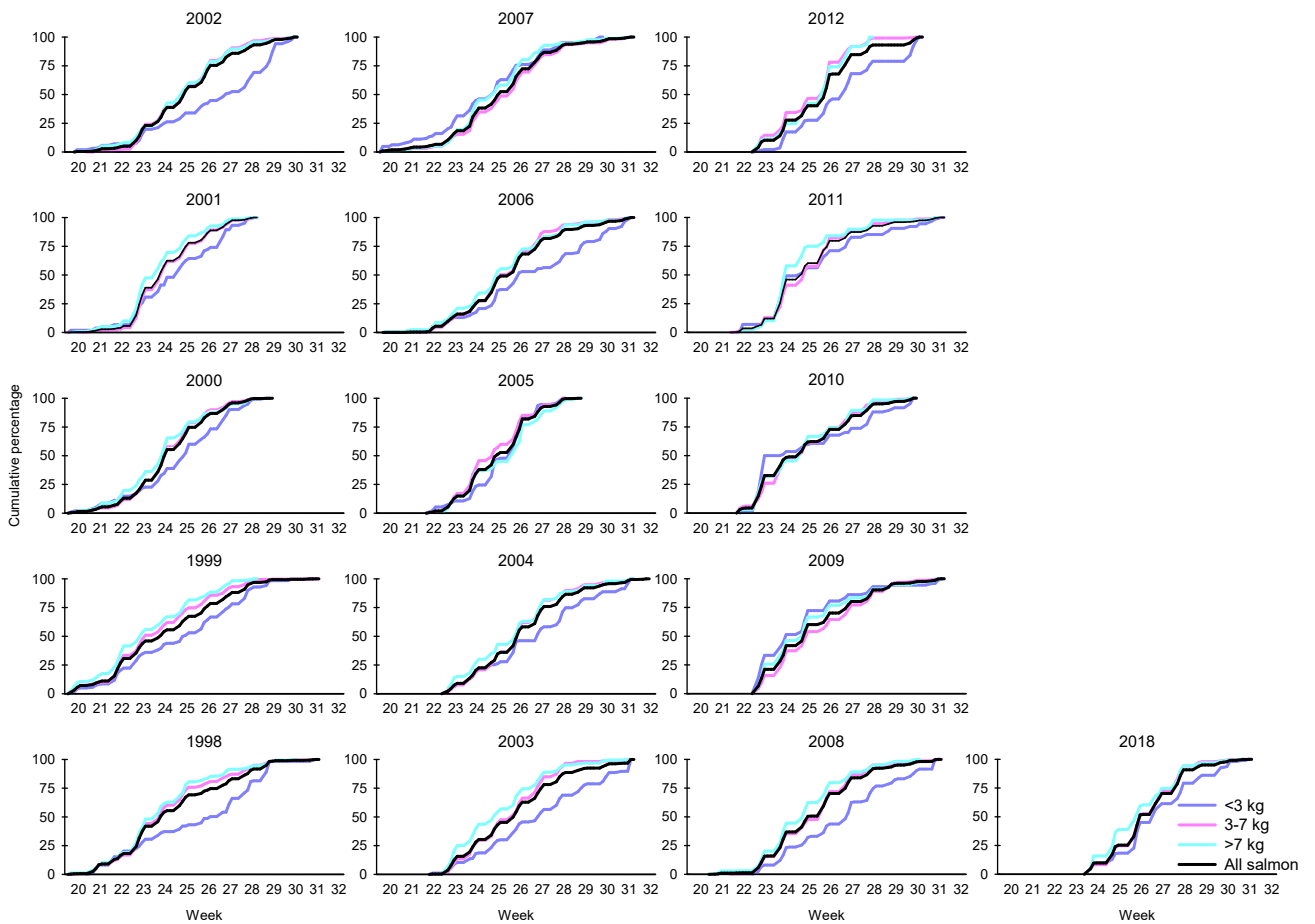


Figure 22. Annual cumulative catches (%) in Gamvik municipality in the years 1998-2018. Source; SSB

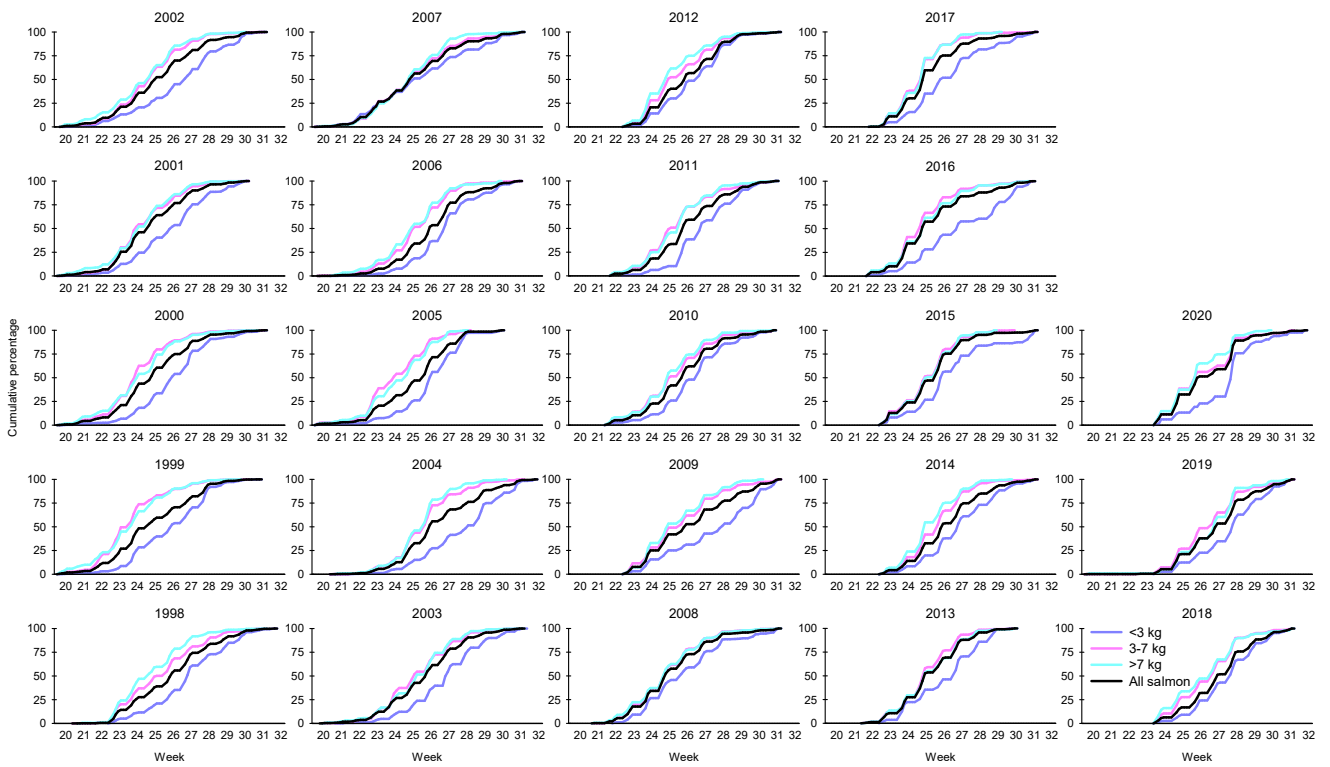


Figure 23. Annual cumulative catches (%) in Tana municipality in the years 1998-2020. Source; SSB

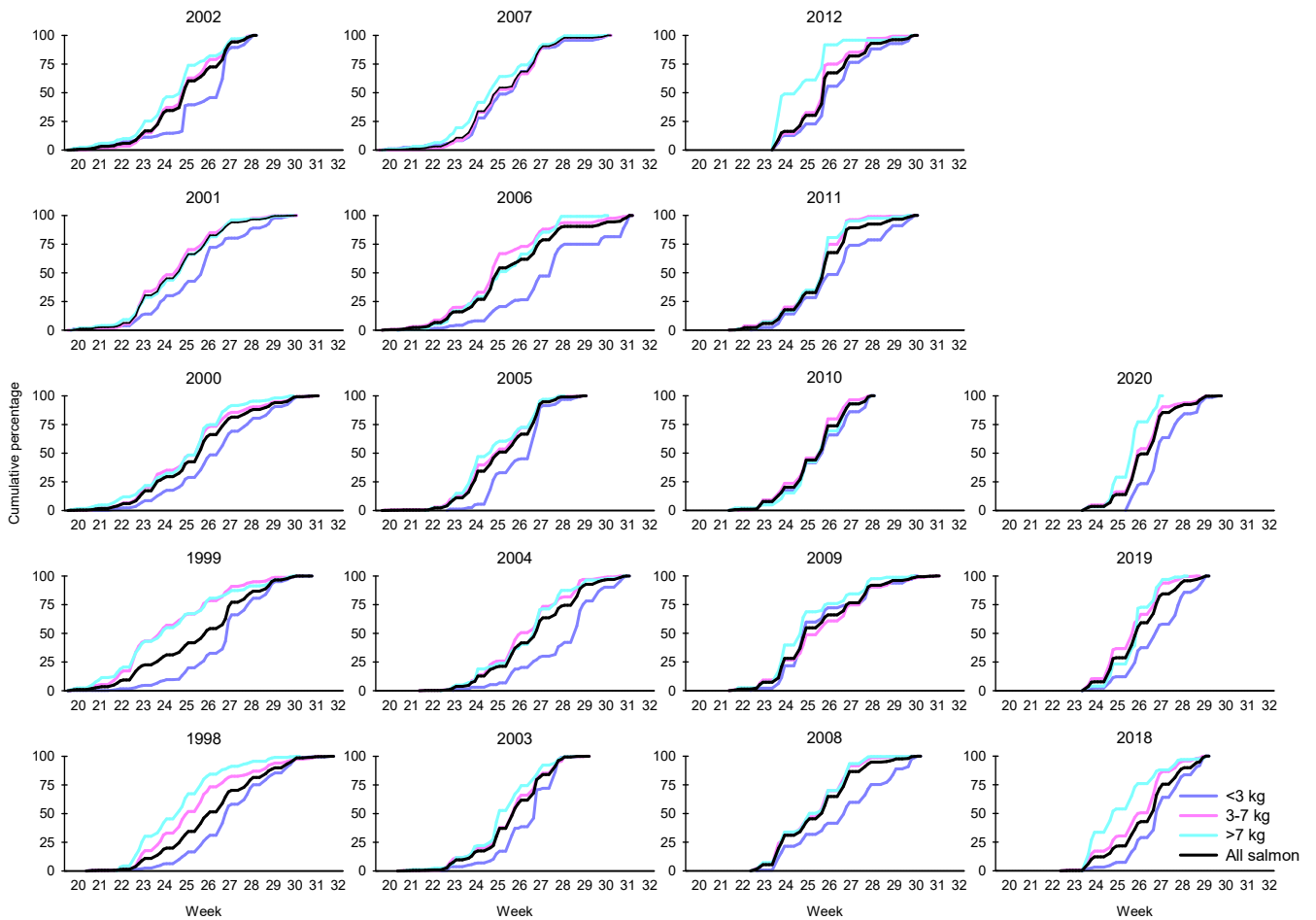


Figure 24. Annual cumulative catches (%) in Berlevåg municipality in the years 1998-2020. Source; SSB

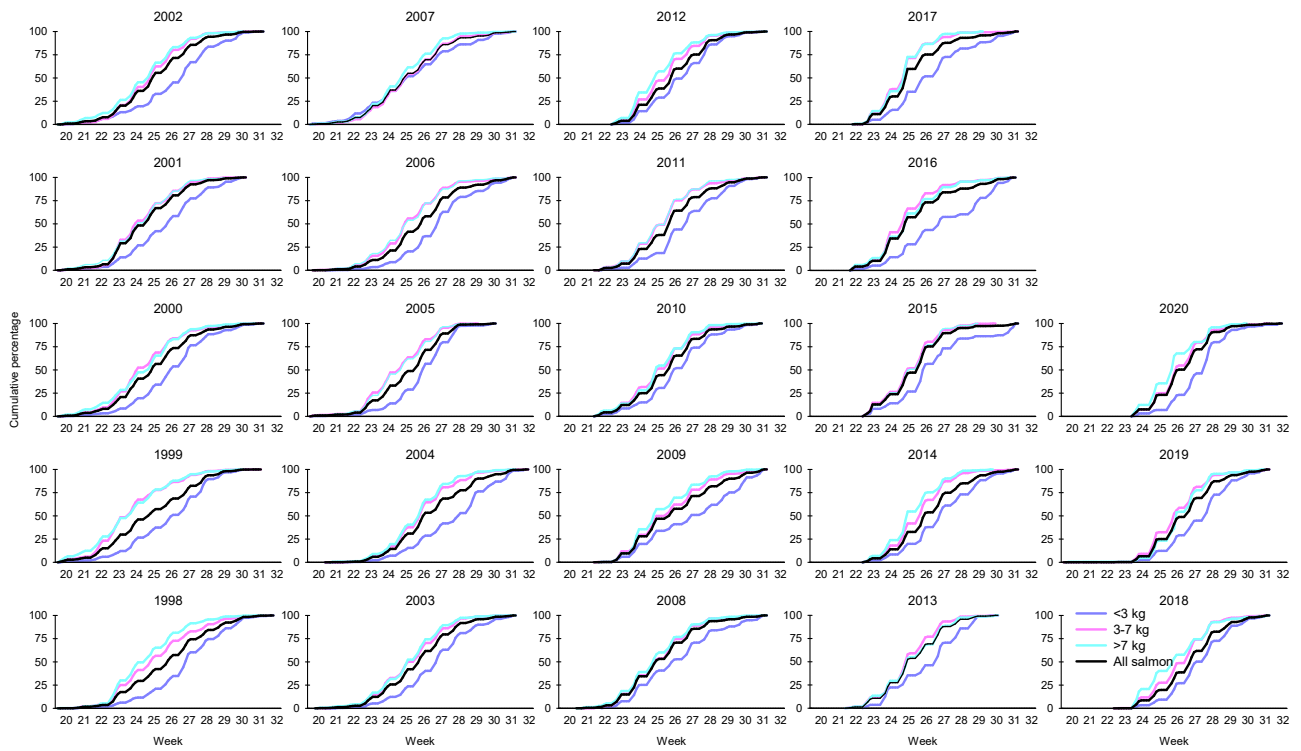


Figure 25. Annual cumulative catches (%) in Gamvik, Tana and Berlevåg municipalities in the years 1998-2020. Source; SSB

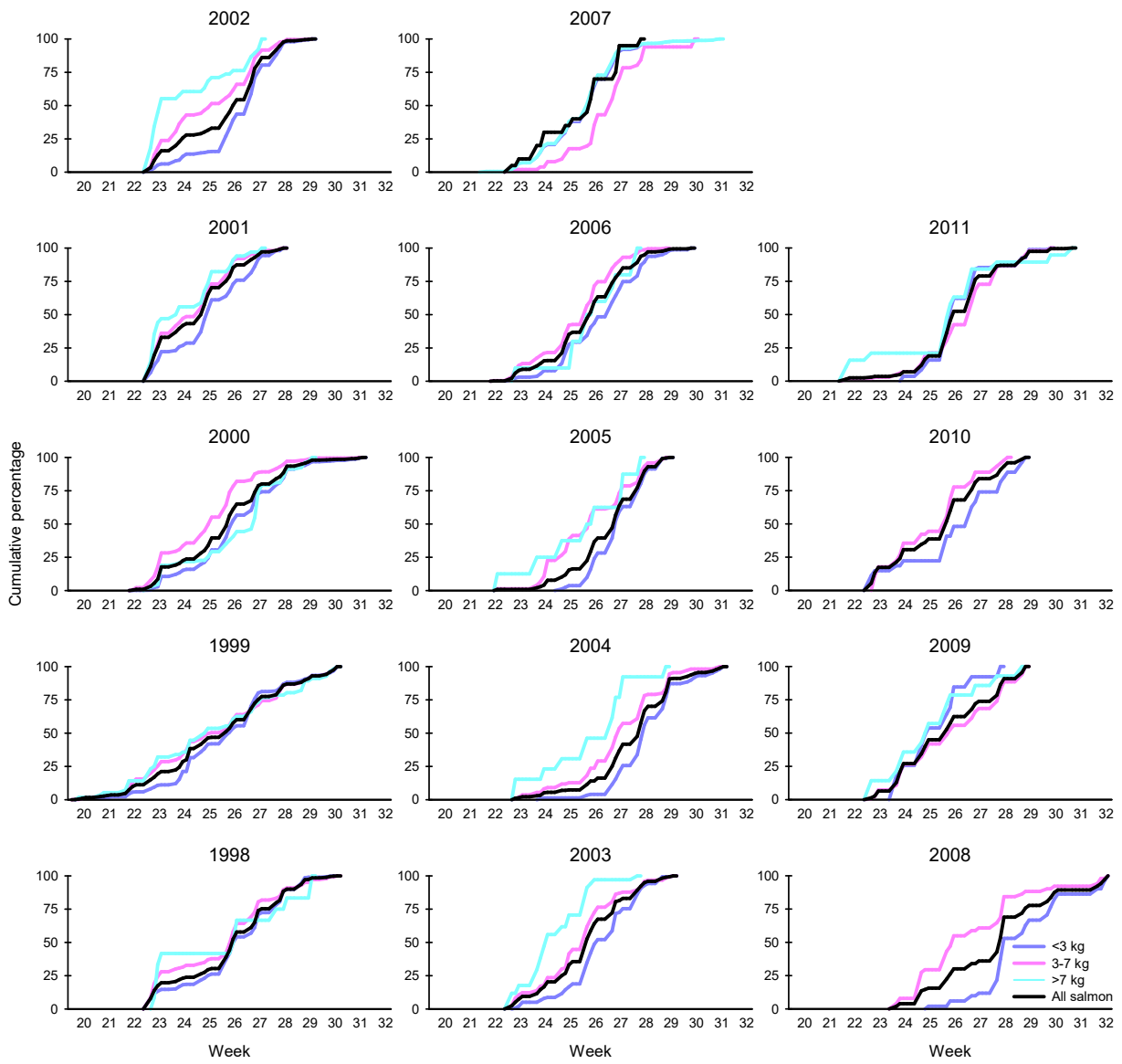


Figure 26. Annual cumulative catches (%) in Båtsfjord and Vardø municipalities in the years 1998-2011. Source; SSB

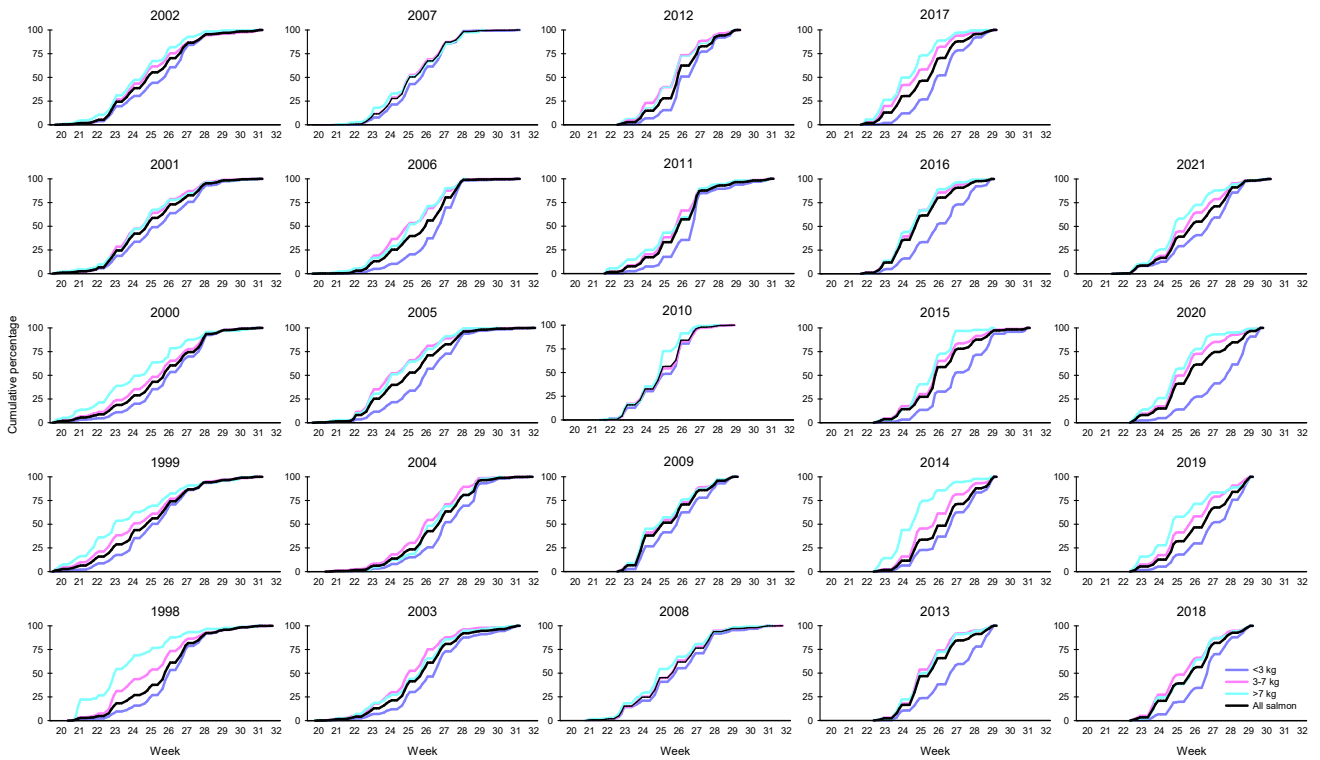


Figure 27. Annual cumulative catches (%) in Vadsø and Nesseby municipalities in the years 1998-2021. Source; SSB

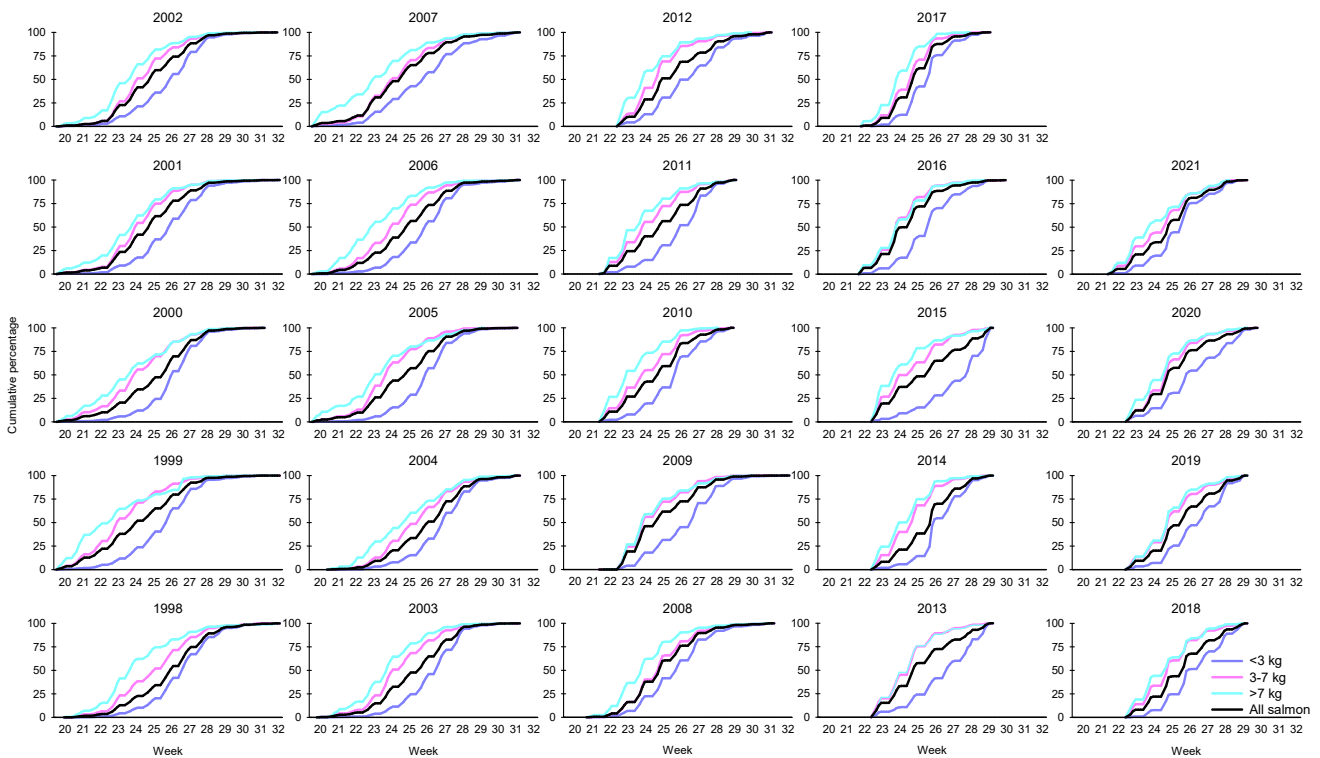


Figure 28. Annual cumulative catches (%) in Sør-Varanger municipality in the years 1998-2021. Source; SSB

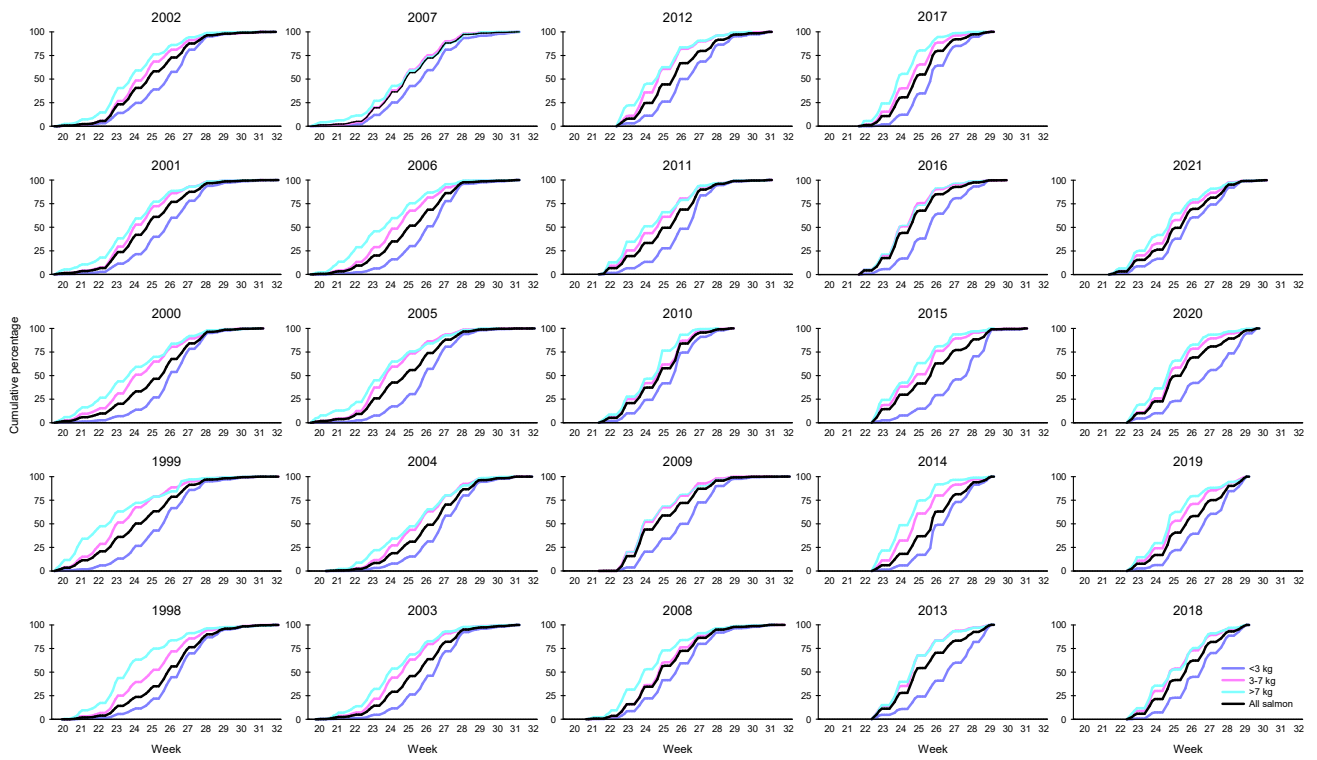


Figure 29. Annual cumulative catches (%) in Vadsø, Nesseby and Sør-Varanger municipalities in the years 1998-2021. Source; SSB