

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 XIII. Daily catches in numbers, kg and proportions for small, medium and large salmon caught in combined bag net and bend net fisheries in Finnmark municipalities; seasonal variations in the size distributions indicating clear peaks in the migrations

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



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| <p>REPORT XIII. Daily catches in numbers, kg and proportions for small, medium and large salmon caught in combined bag net and bend net fisheries in Finnmark municipalities; seasonal variations in the size distributions indicating clear peaks in the migrations. Niemelä ^{1,2}, E., Hassinen ^{1,2}, E., Høstmark ³, M.S., Kalske ³, 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>Reported daily salmon catches in the outer coastal areas of West Finnmark in the municipalities Loppa and Hasvik, indicate that the numbers and weights of large salmon (>7 kg) are occurring in high proportions throughout the entire fishing season. Within these outer coastal areas, the daily proportions of small salmon are staying quite stable throughout the entire fishing season. Large salmon in the catches in Alta municipality occurs in exceptional high proportions and especially from the weights of salmon throughout the entire season. The proportions of small salmon in the catches show in Alta municipality a clear increase from the early June to the beginning of August. A reason for the high daily proportions of large salmon in June and July in Alta municipality catches is due to the River Alta, where major catches are also large salmon. The same high proportions of large salmon in Porsanger municipality depends on the major stock of large salmon in the River Lakselv. In Porsanger municipality, which is in principle almost the entire Porsangerfjord, large salmon occurs in exceptional high proportions in daily catches to the end of fishing season. In Tana municipality in Tanafjord, the proportions of large salmon in daily catches in terms of numbers and weighs have declined along the years. In Tana municipality, the proportions of small salmon are increasing along the summer. In the catches in Vadsø/Nesseby municipalities, the occurrence of large salmon in the daily catches is very low compared to the catches in other municipality areas in Finnmark.</p> | |
| <p>Key words: Daily catches, Atlantic salmon, Salmo salar, West Finnmark, bag net, bend net, size distribution</p> | |
| <p>Front page photo: Eero Niemelä</p> | |

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1. Daily salmon catch distributions throughout the summer (in numbers and weights) reflect the general timing of salmon migrations in the fisheries in Loppa and Hasvik municipalities

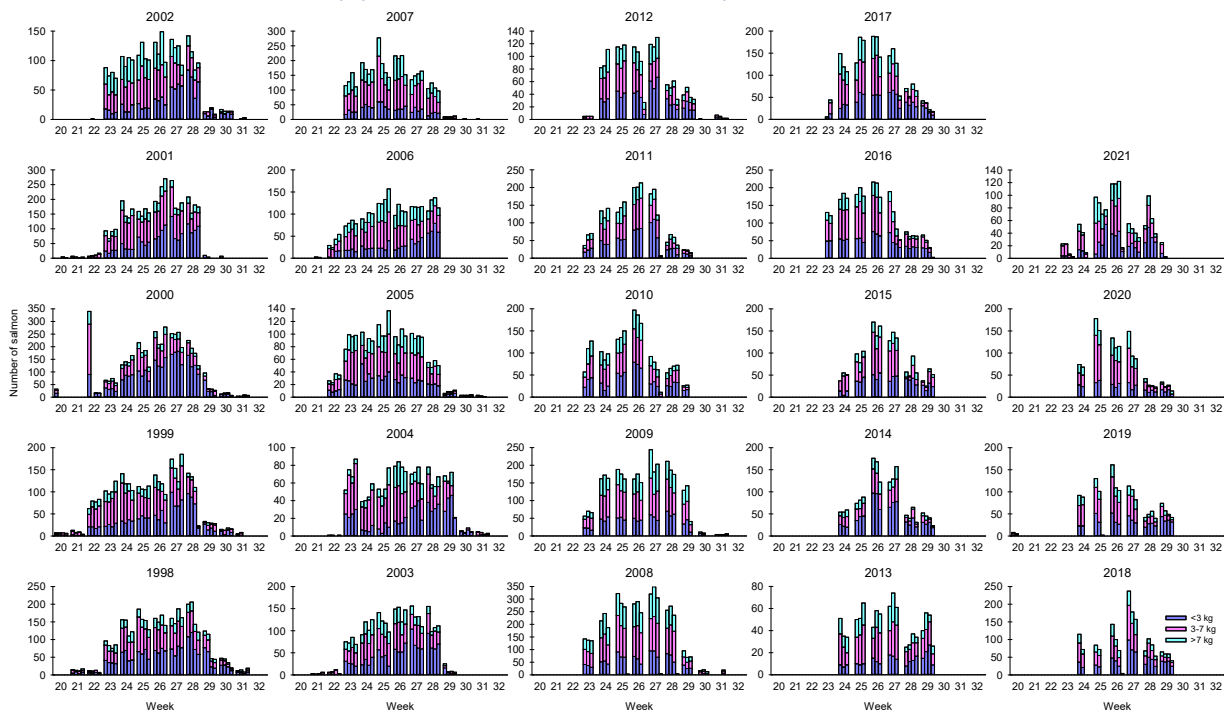


Figure 1. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Loppa municipality. Source: SSB

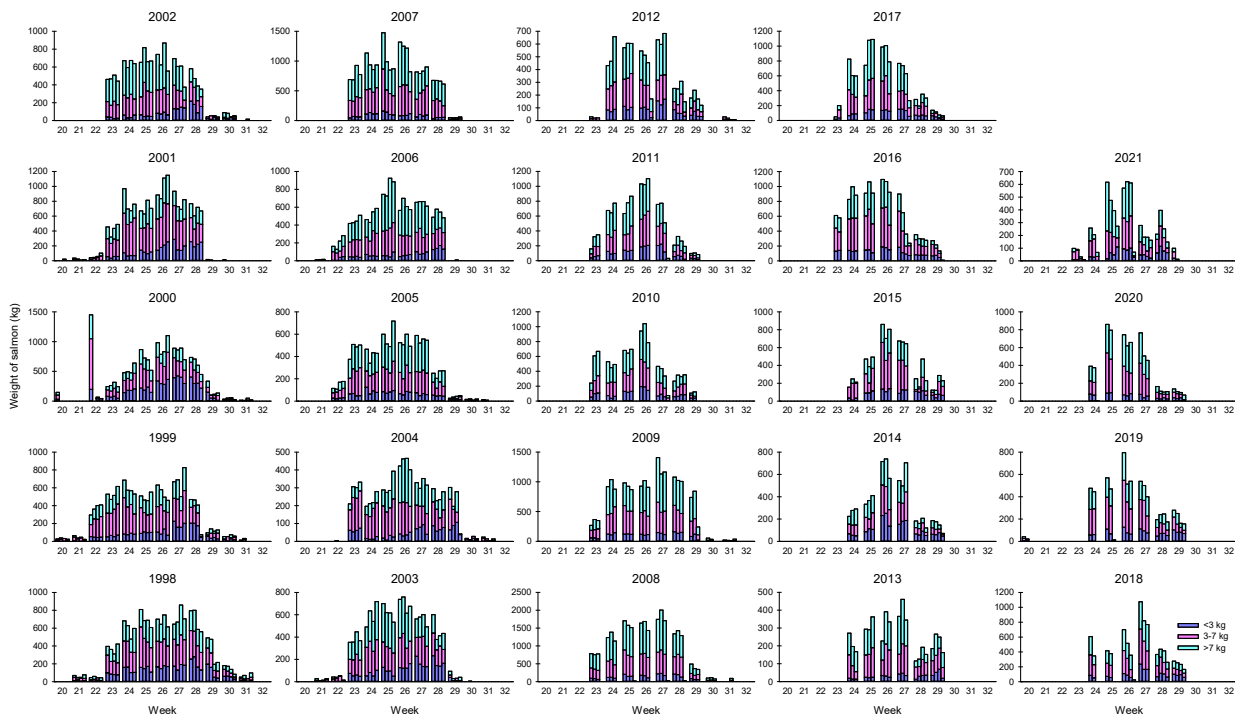


Figure 2. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Loppa municipality. Source: SSB

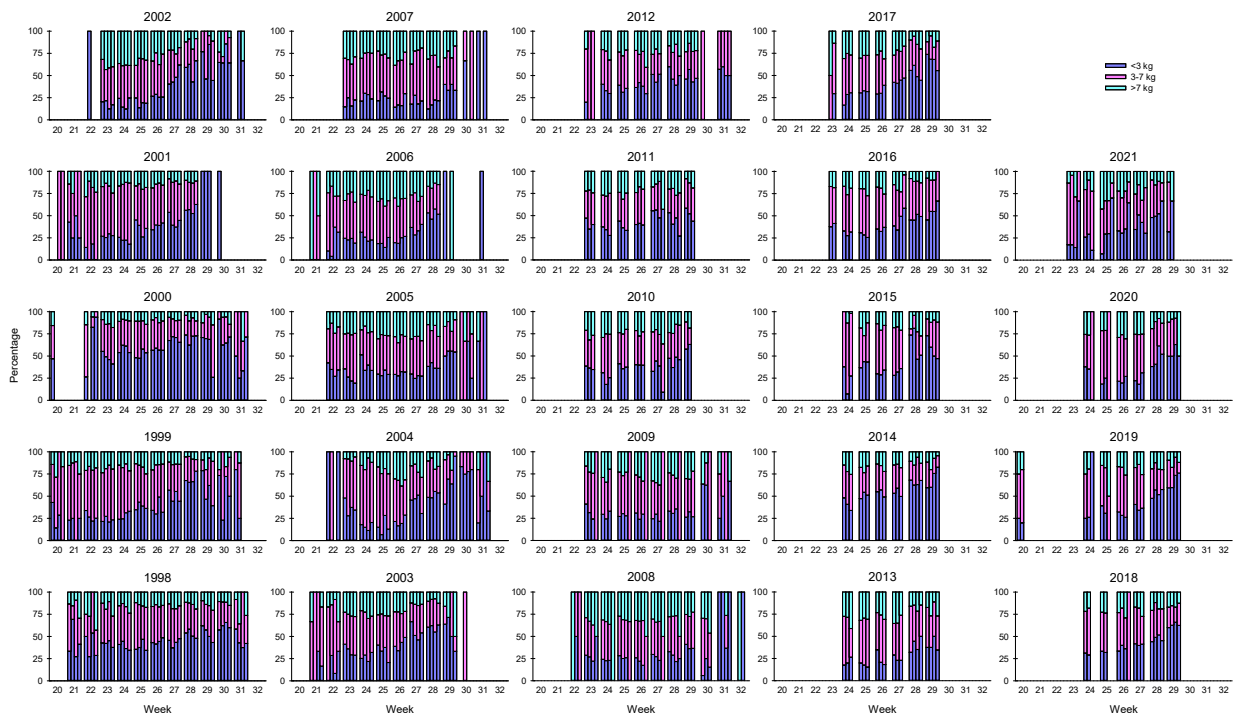


Figure 3. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Loppa municipality. Source: SSB

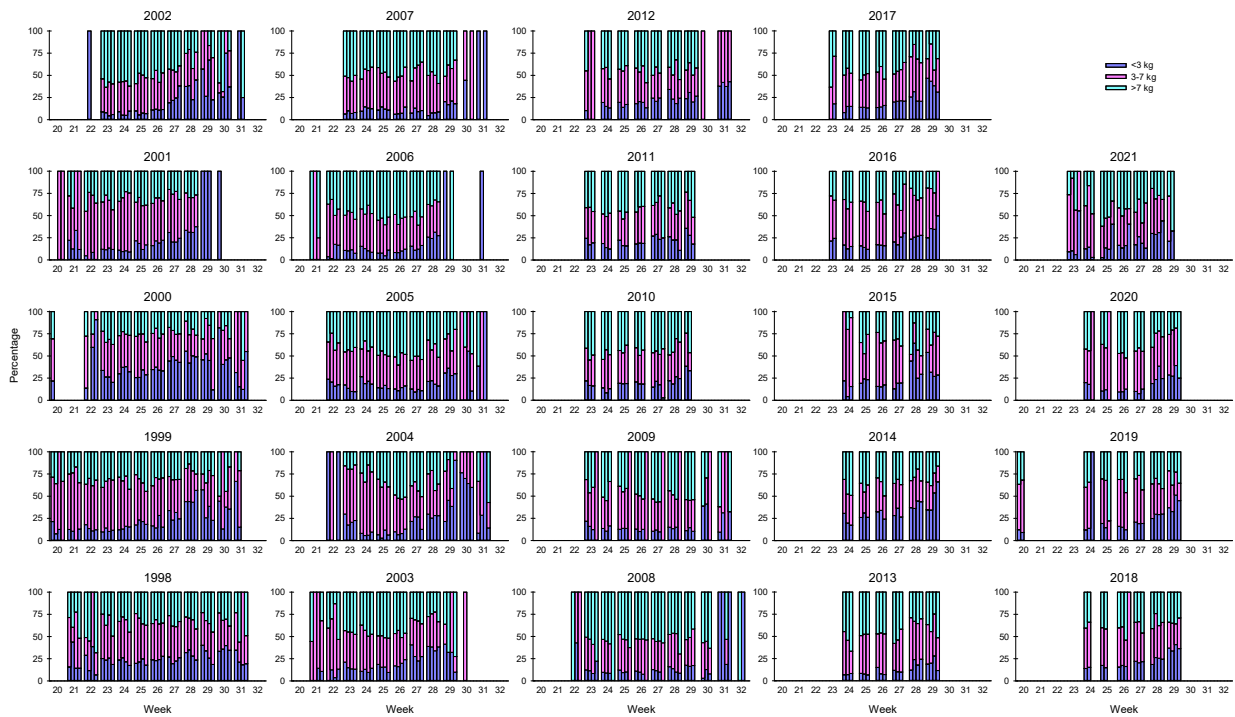


Figure 4. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Loppa municipality. Source: SSB

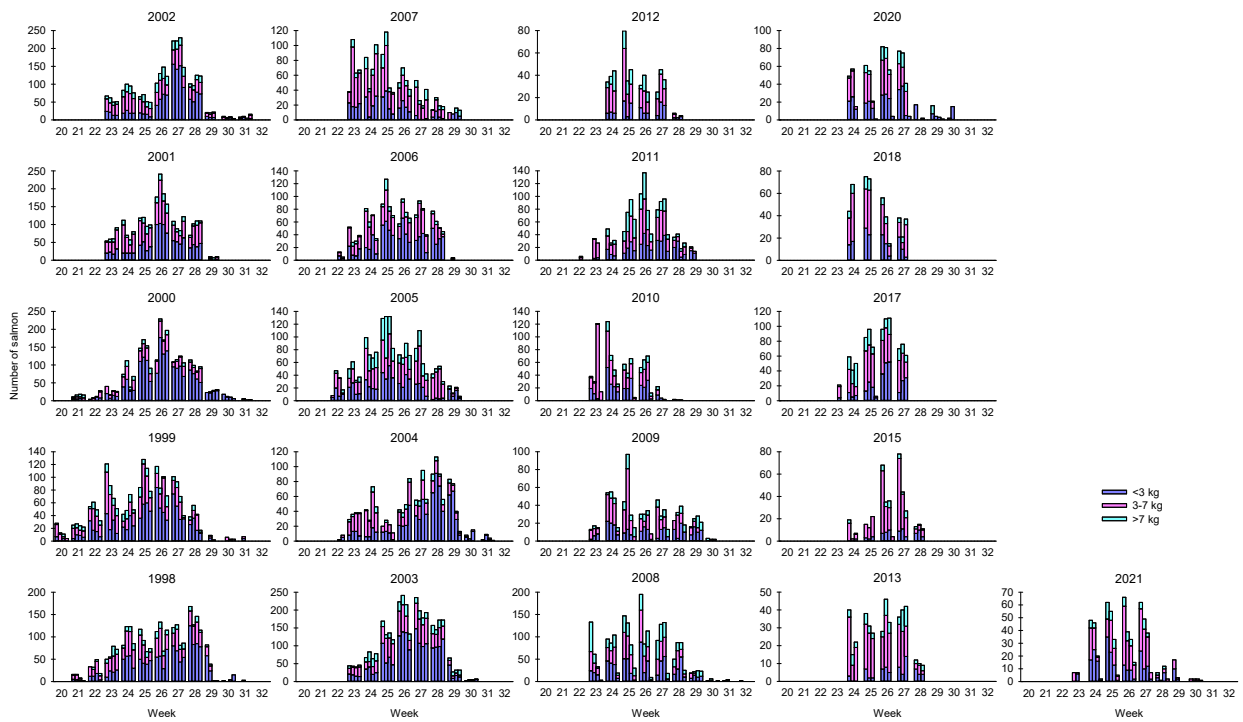


Figure 5. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Hasvik municipality. Source: SSB

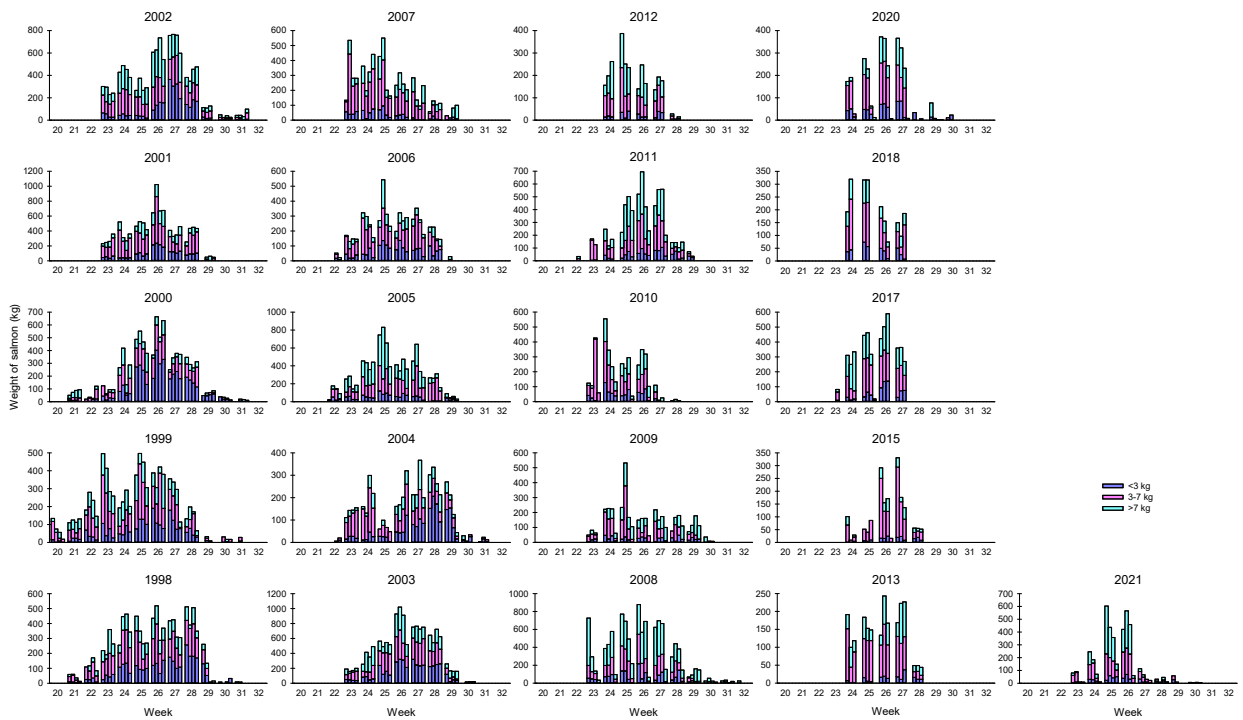


Figure 6. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Hasvik municipality. Source: SSB

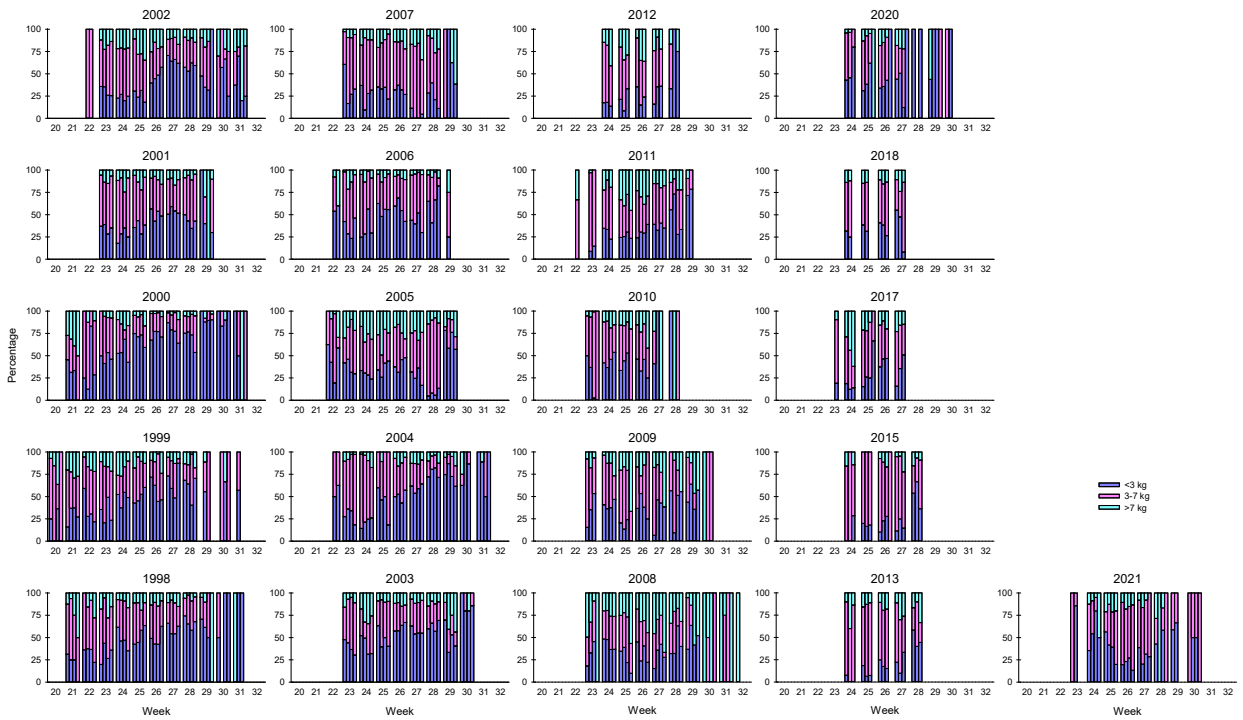


Figure 7. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Hasvik municipality. Source: SSB

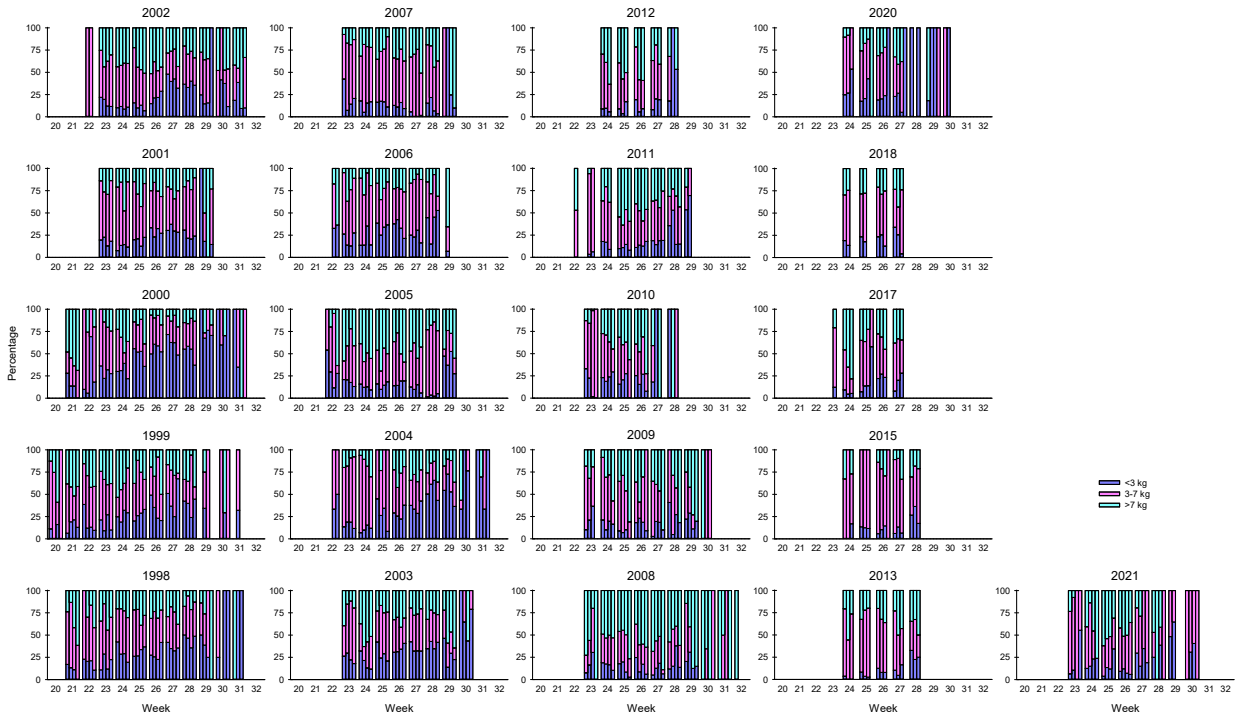


Figure 8. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Hasvik municipality. Source: SSB

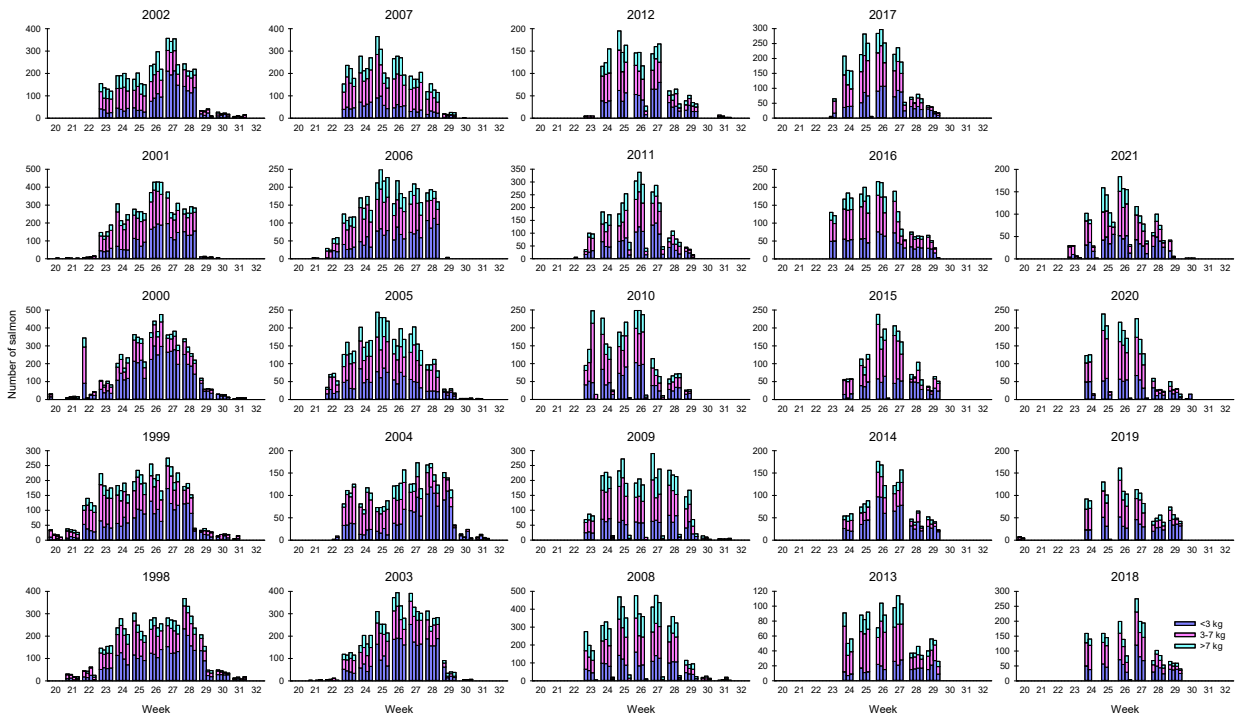


Figure 9. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Loppa and Hasvik municipalities. Source: SSB

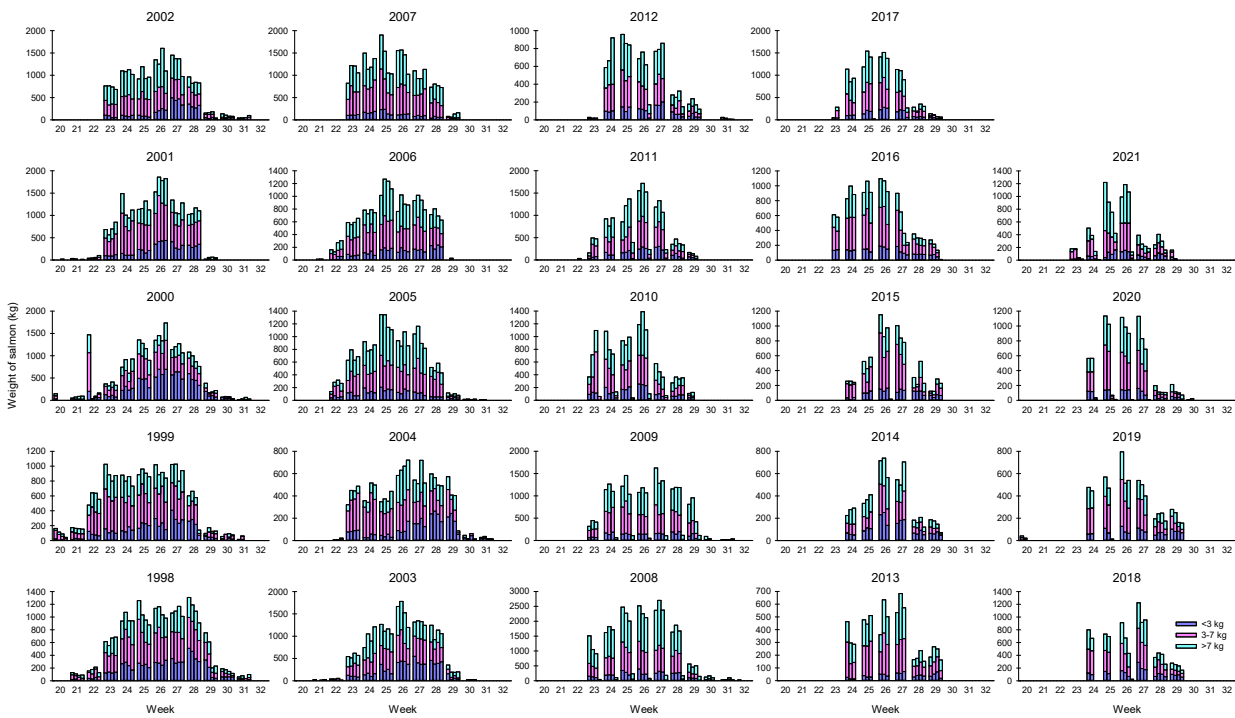


Figure 10. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Loppa and Hasvik municipalities. Source: SSB

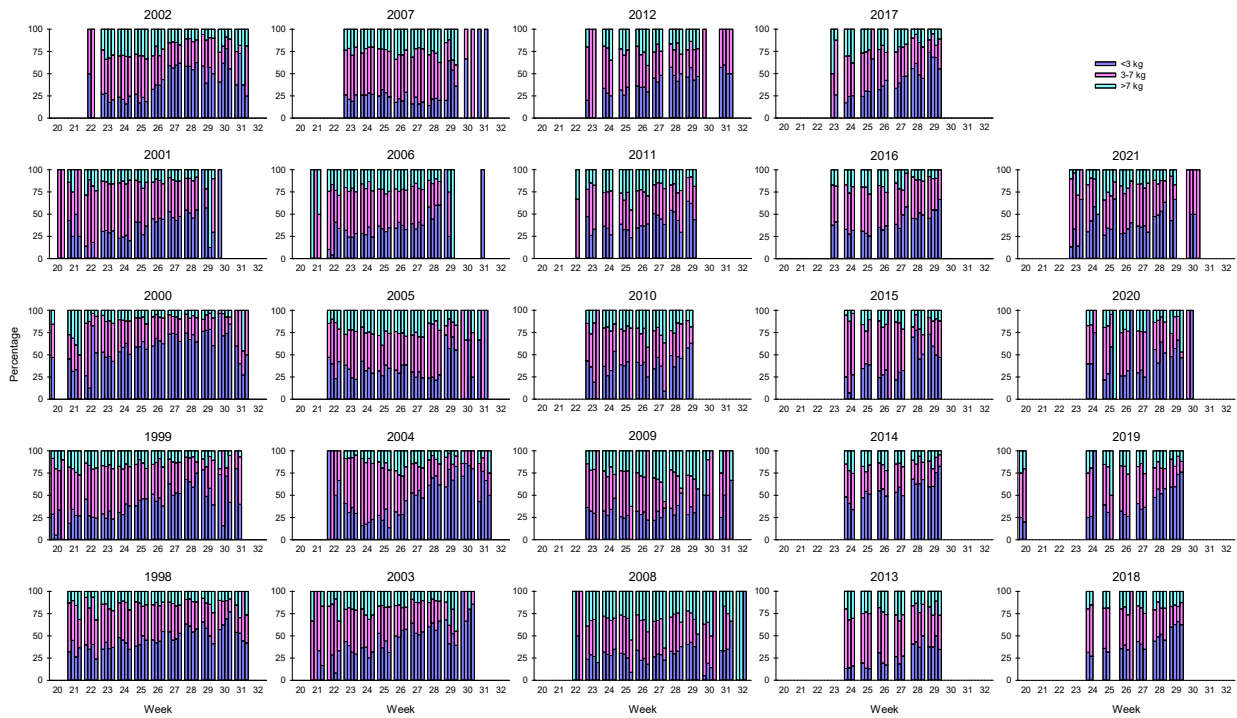


Figure 11. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Loppa and Hasvik municipalities. Source: SSB

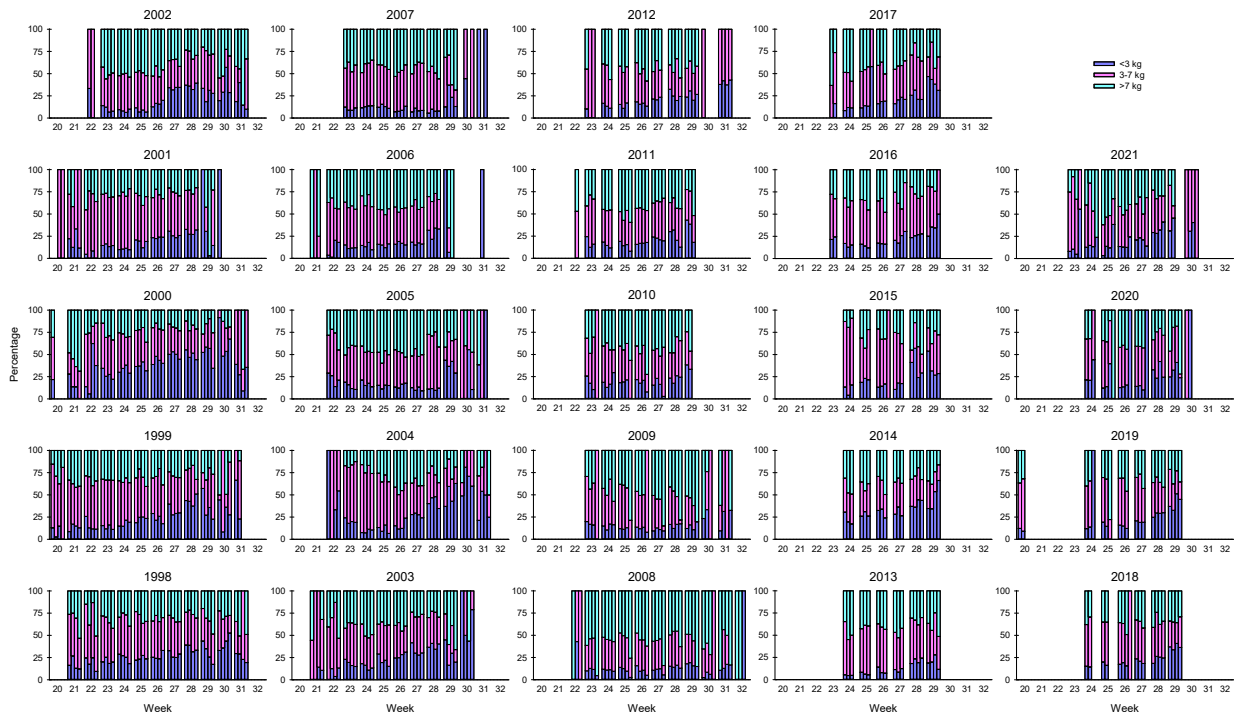


Figure 12. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Loppa and Hasvik municipalities. Source: SSB

2. Daily salmon catch distributions throughout the summer (in numbers and weights) reflect the general timing of salmon migrations in the fisheries in Alta municipality

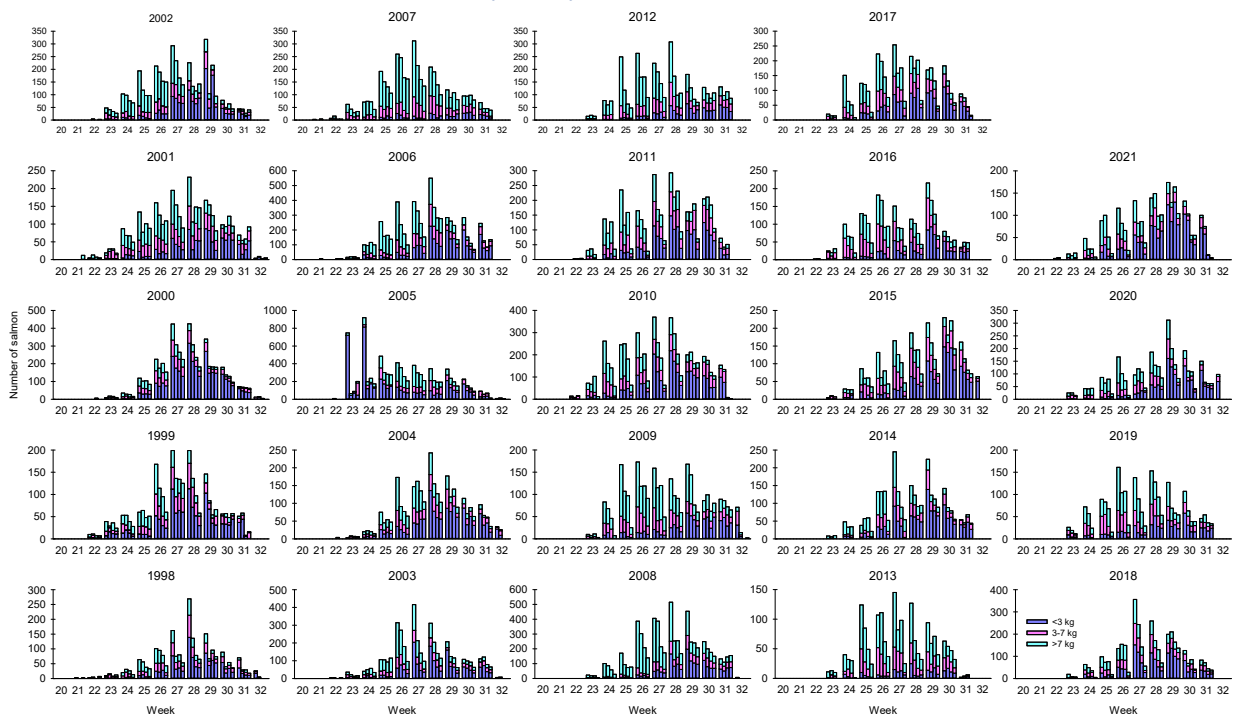


Figure 13. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Alta municipality. Source: SSB

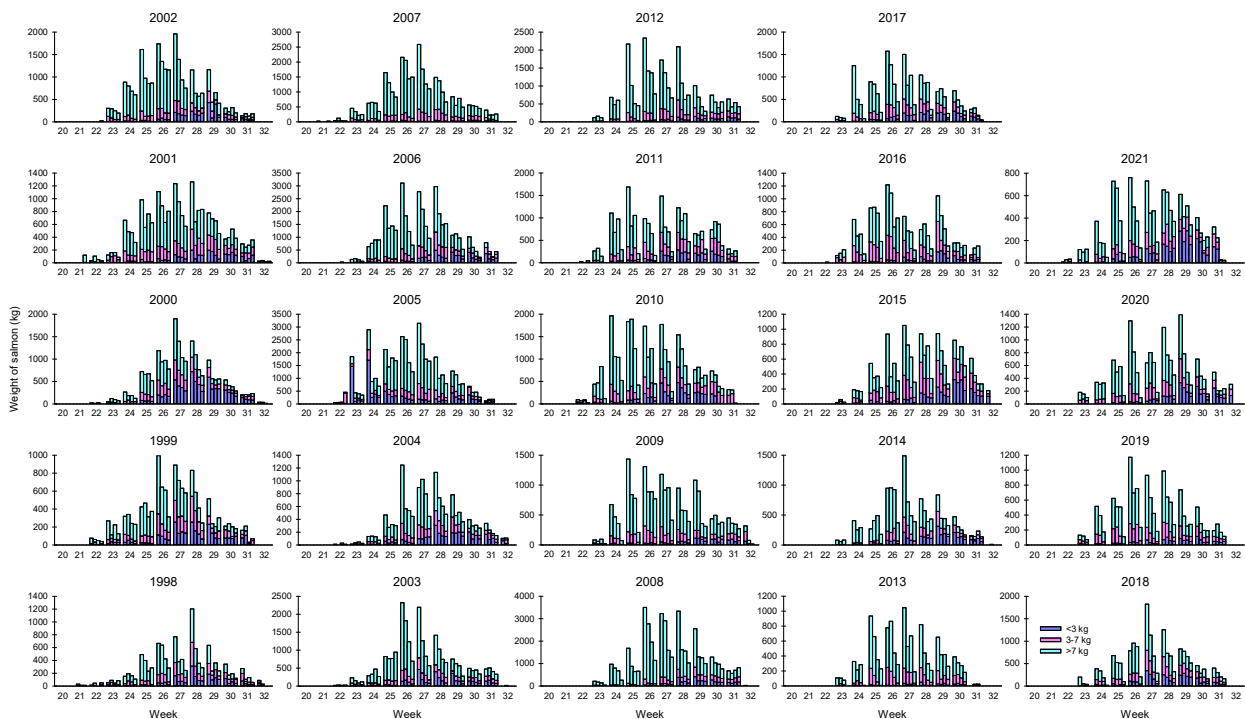


Figure 14. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Alta municipality. Source: SSB

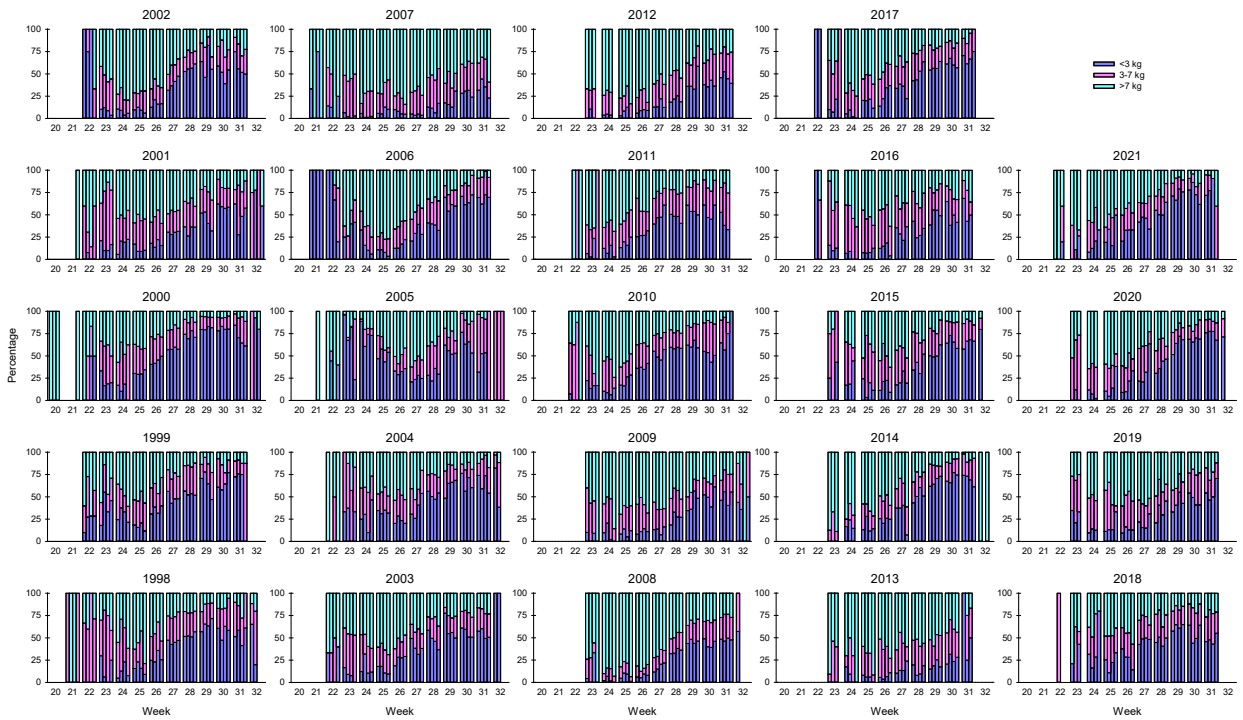


Figure 15. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Alta municipality. Source: SSB

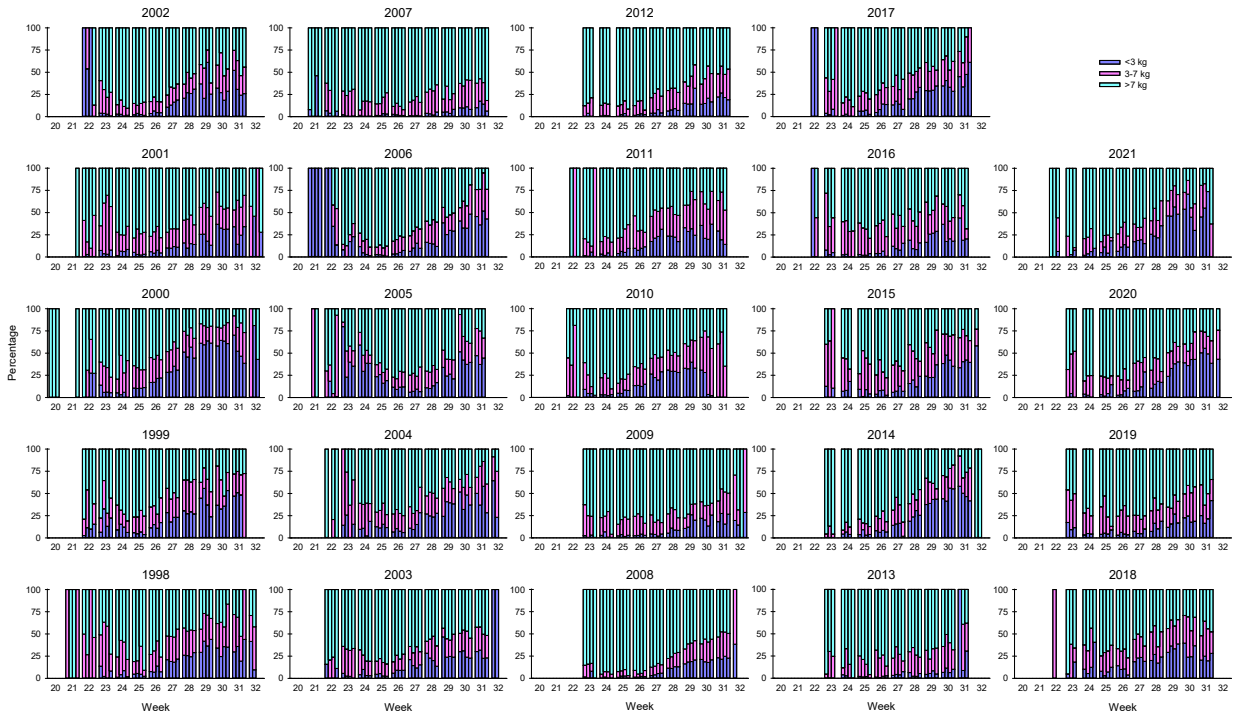


Figure 16. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Alta municipality. Source: SSB

3. Daily salmon catch distributions throughout the summer (in numbers and weights) reflect the general timing of salmon migrations in the fisheries in Kvalsund municipality

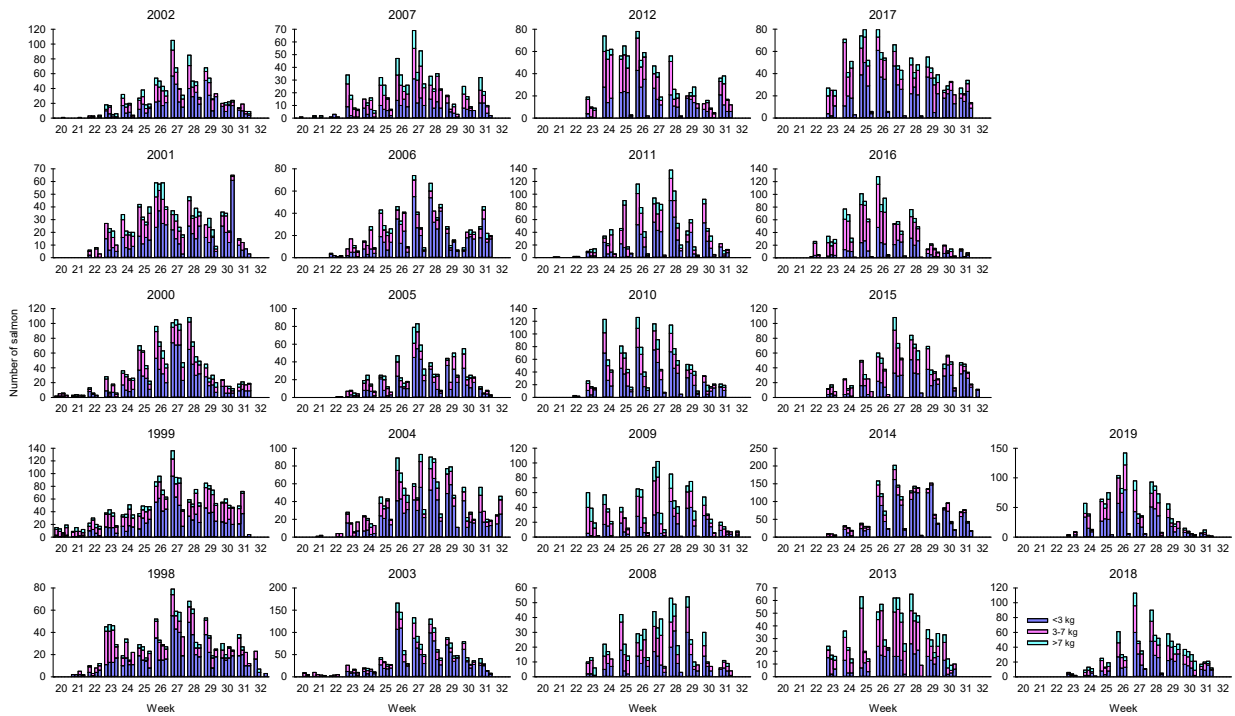


Figure 17. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Kvalsund municipality. Source: SSB

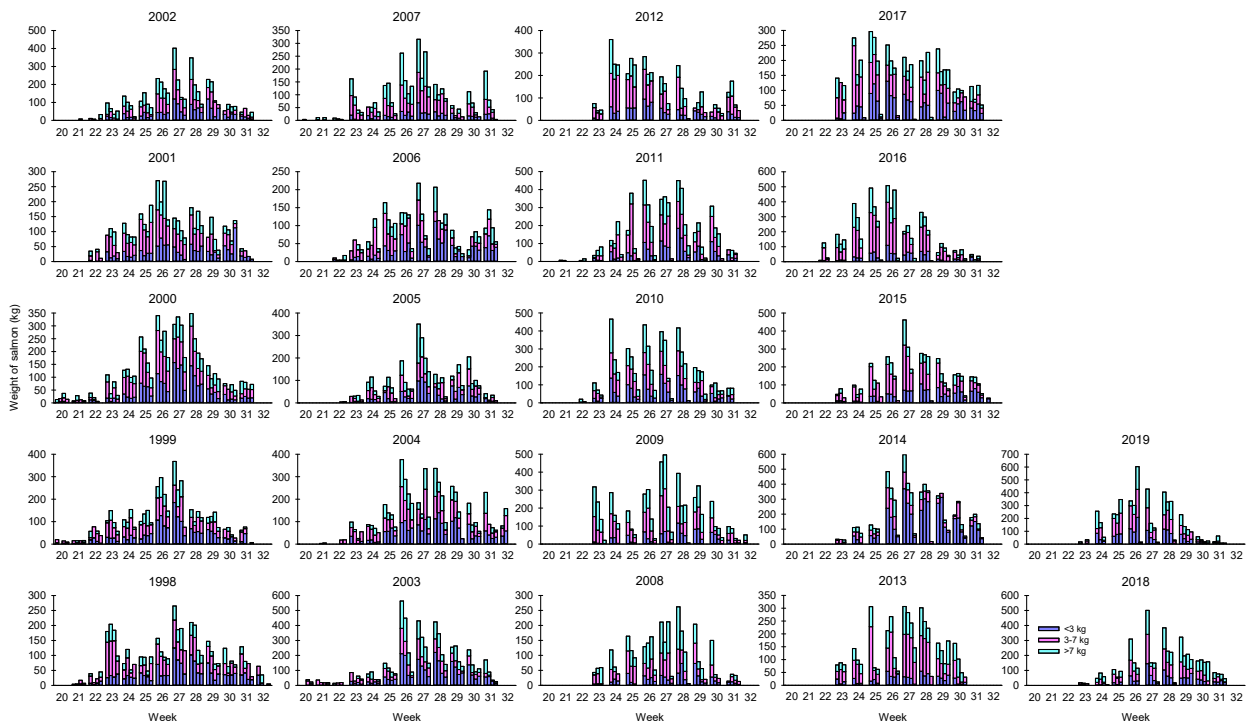


Figure 18. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Kvalsund municipality. Source: SSB

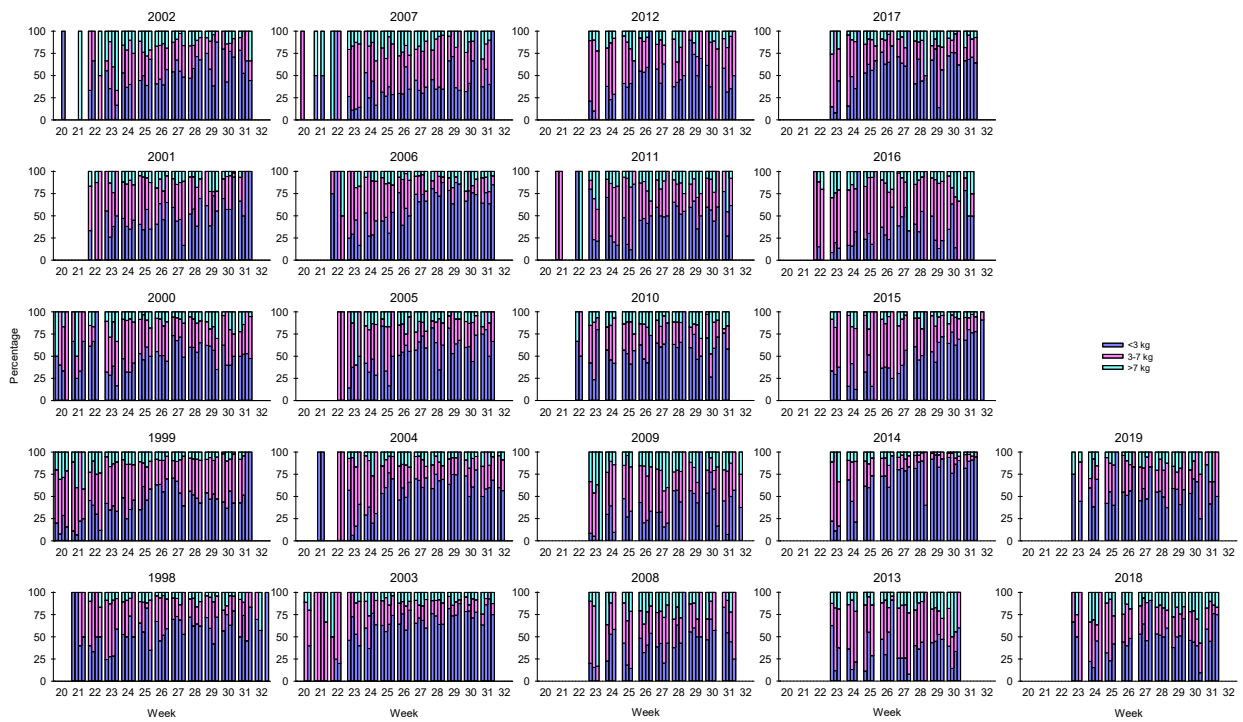


Figure 19. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Kvalsund municipality. Source: SSB

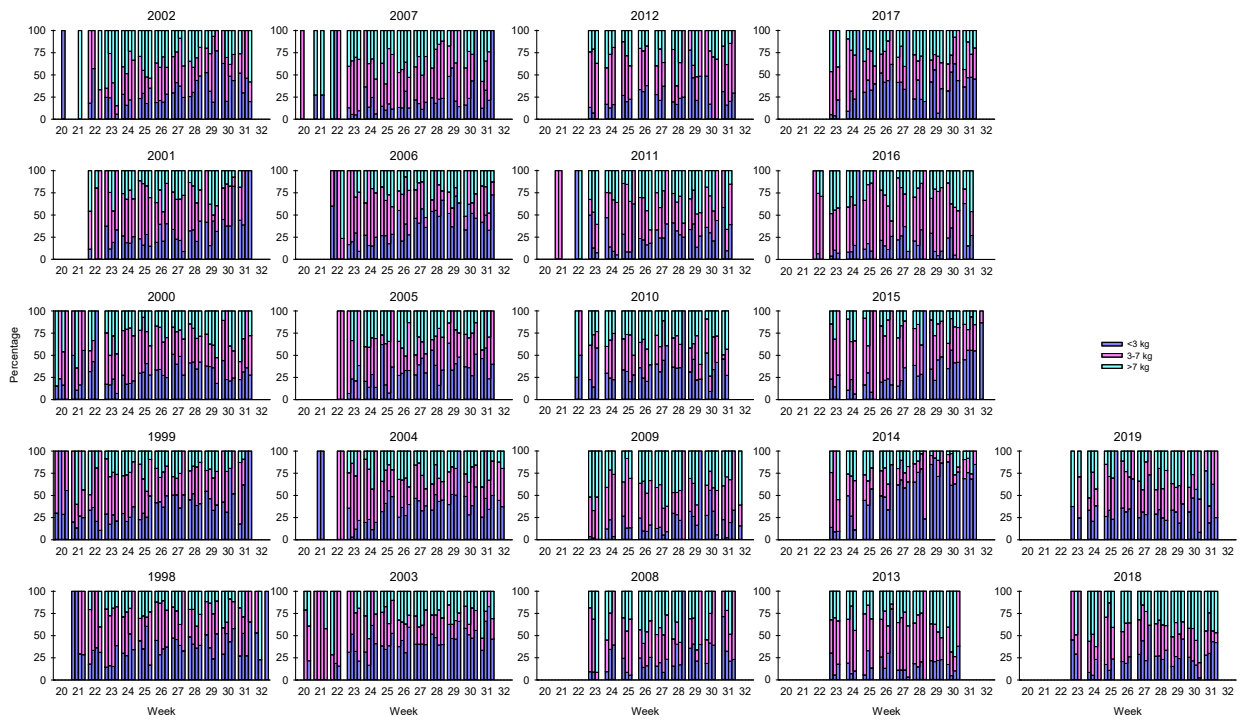


Figure 20. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Kvalsund municipality. Source: SSB

4. Daily salmon catch distributions throughout the summer (in numbers and weights) reflect the general timing of salmon migrations in the fisheries in Hammerfest municipality

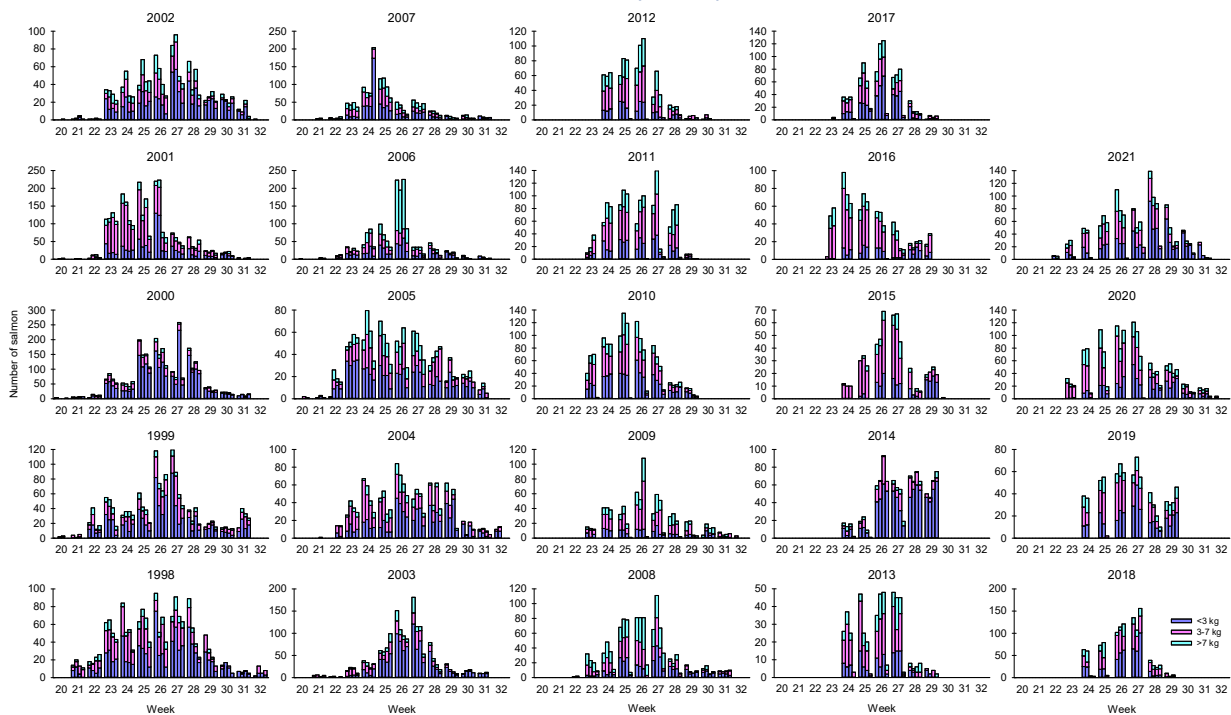


Figure 21. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Hammerfest municipality. Source: SSB

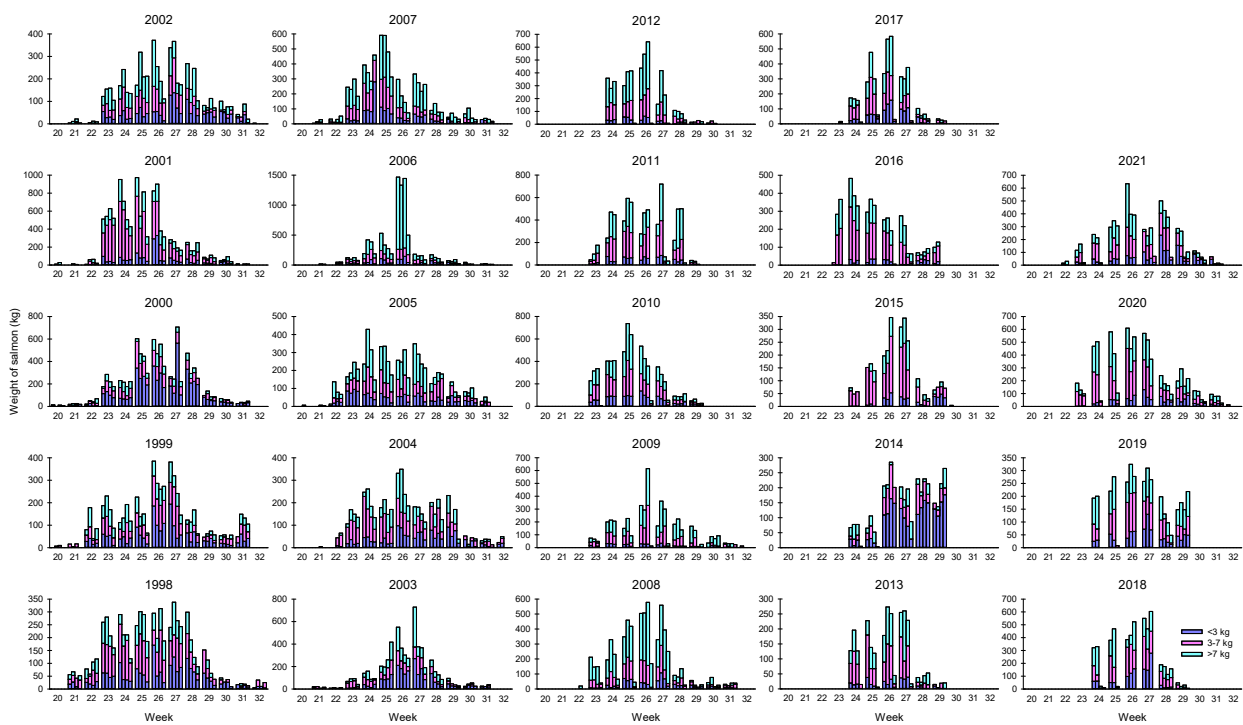


Figure 22. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Hammerfest municipality. Source: SSB

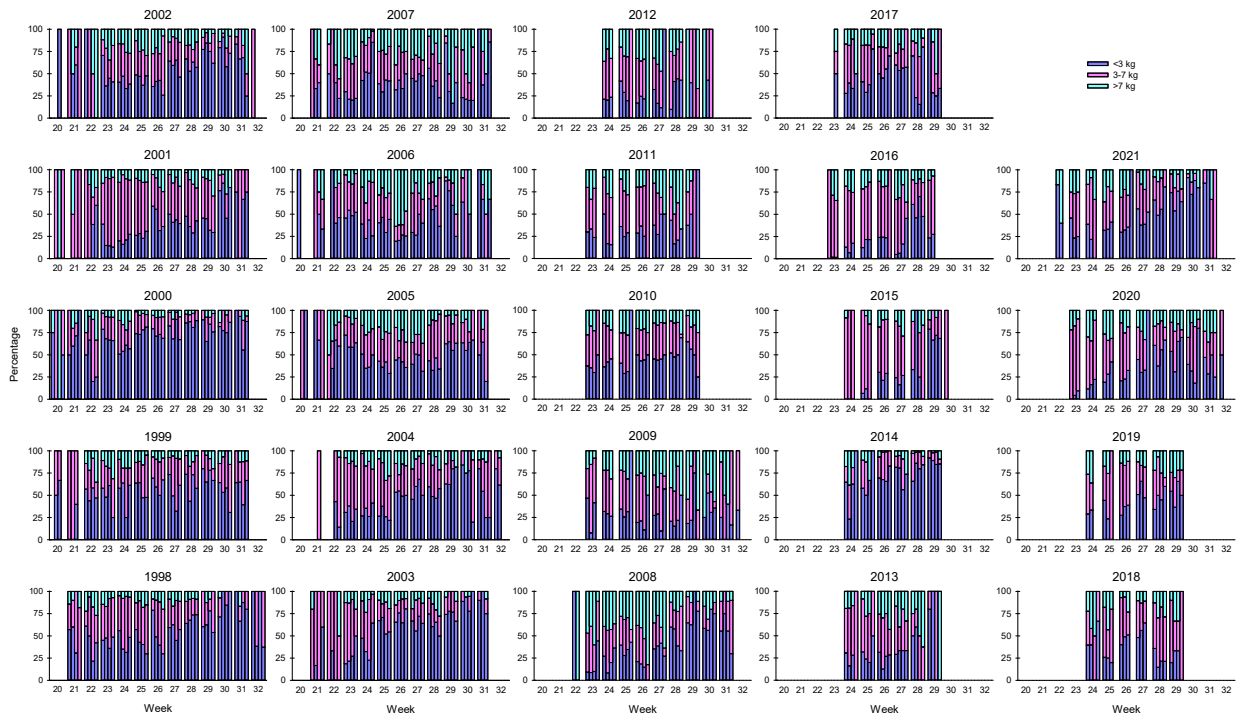


Figure 23. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Hammerfest municipality. Source: SSB

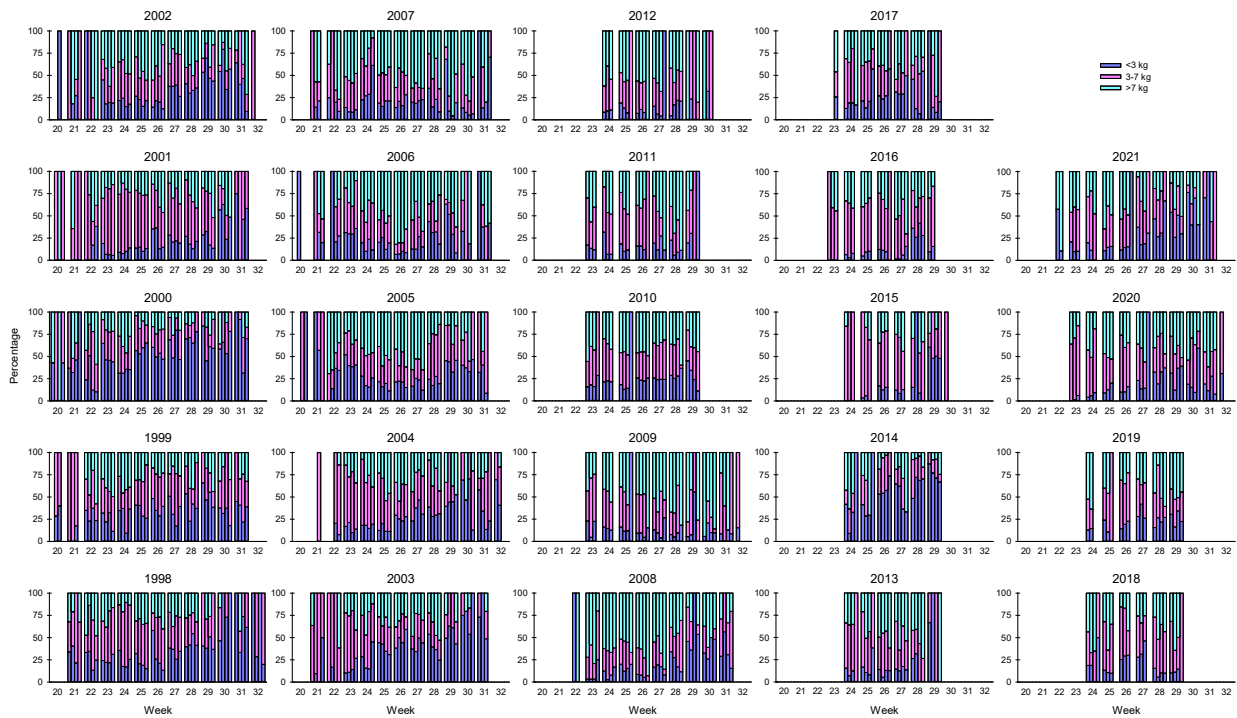


Figure 24. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Hammerfest municipality. Source: SSB

5. Daily salmon catch distributions throughout the summer (in numbers and weights) reflect the general timing of salmon migrations in the fisheries in Måsøy and Nordkapp municipalities

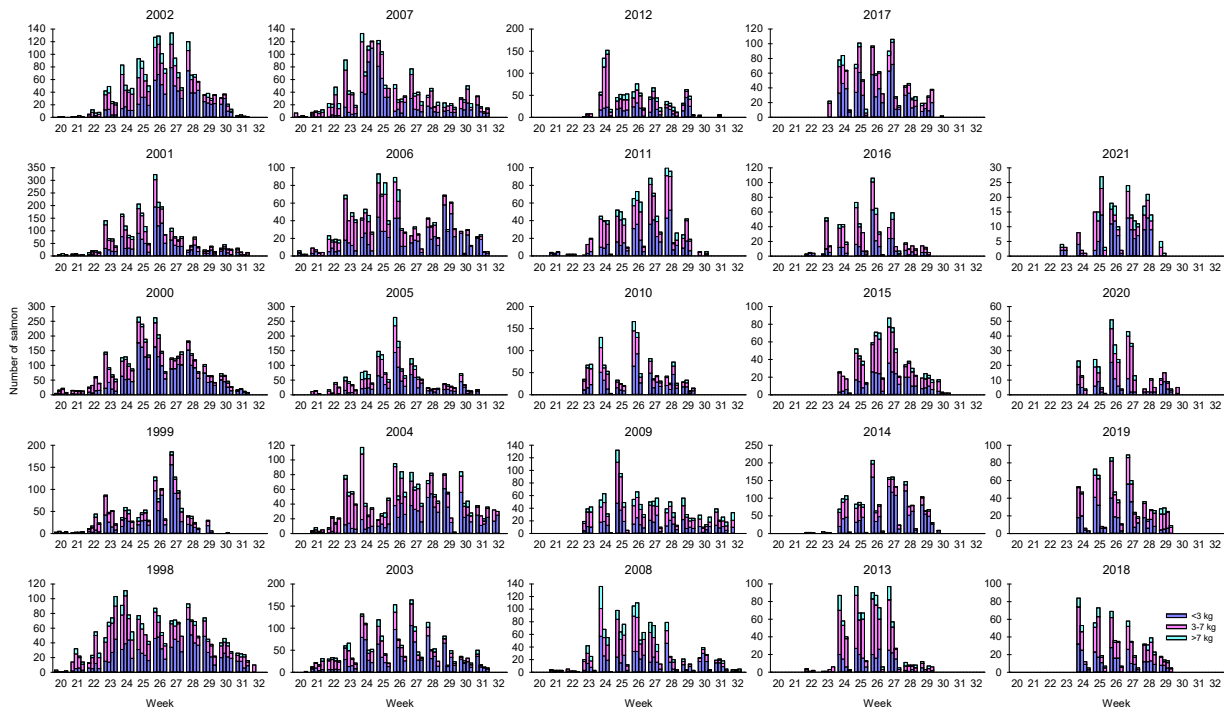


Figure 25. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Måsøy municipality. Source: SSB

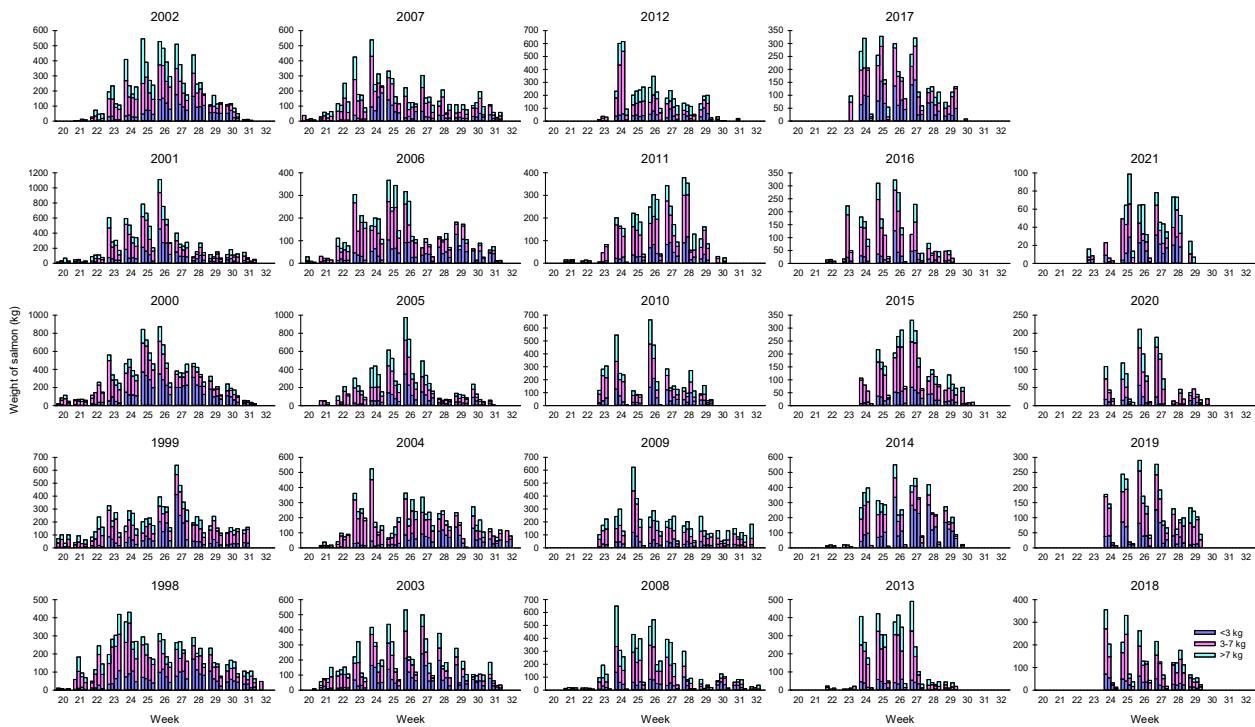


Figure 26. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Måsøy municipality. Source: SSB

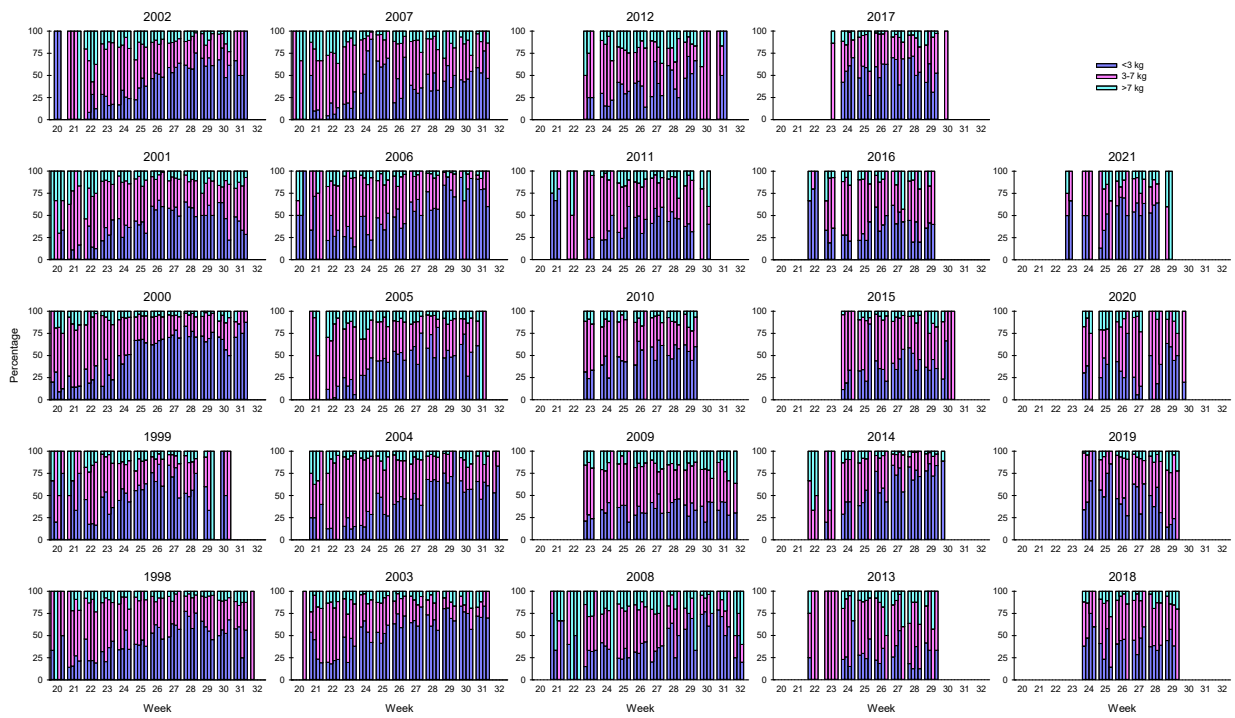


Figure 27. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Måsøy municipality. Source: SSB

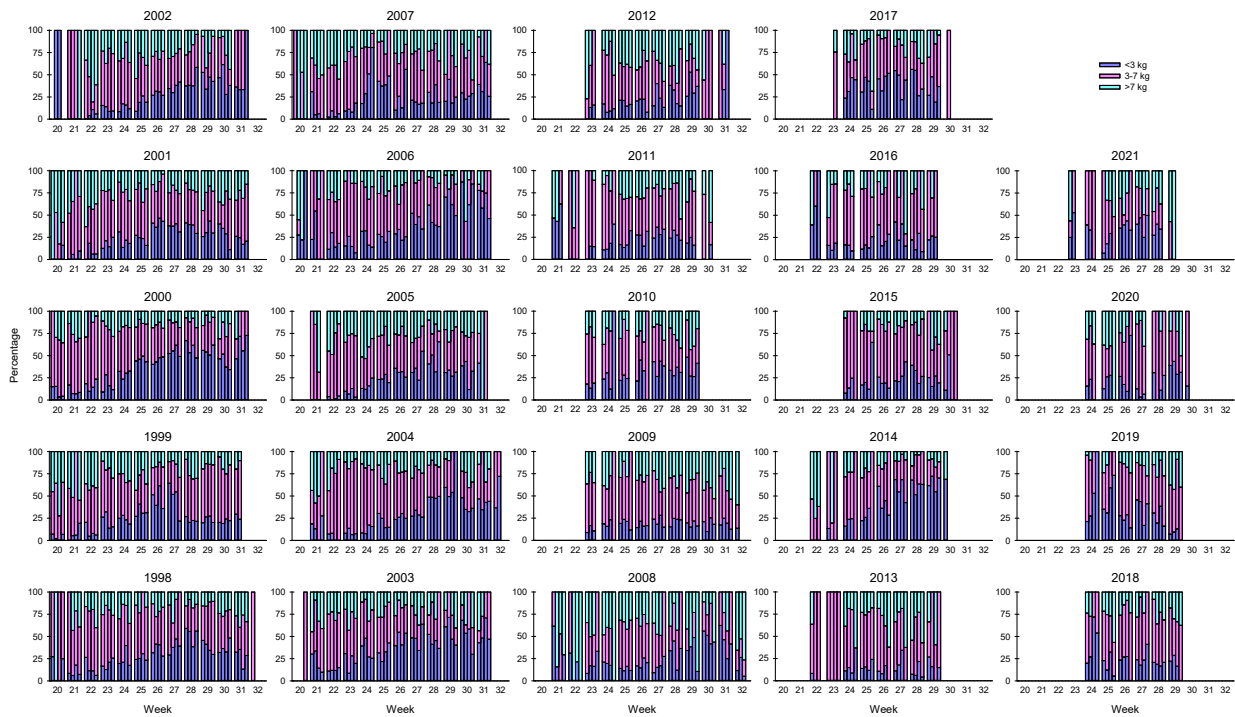


Figure 28. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Måsøy municipality. Source: SSB

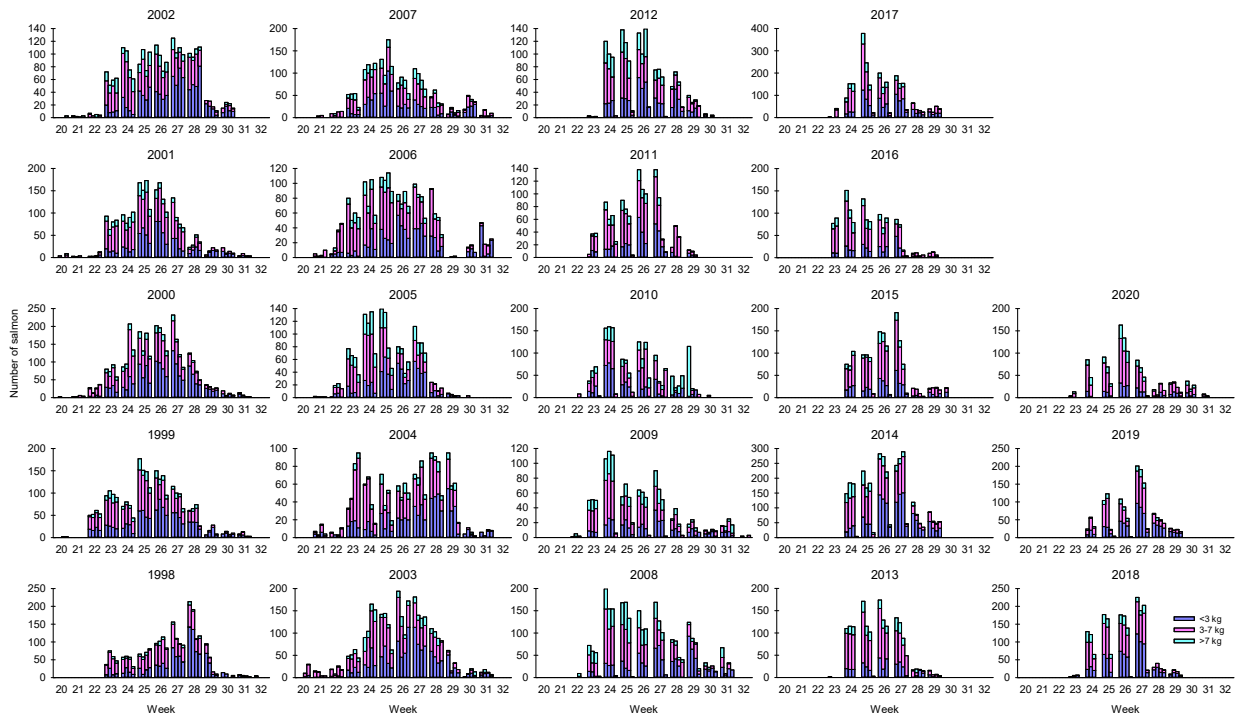


Figure 29. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Nordkapp municipality. Source: SSB

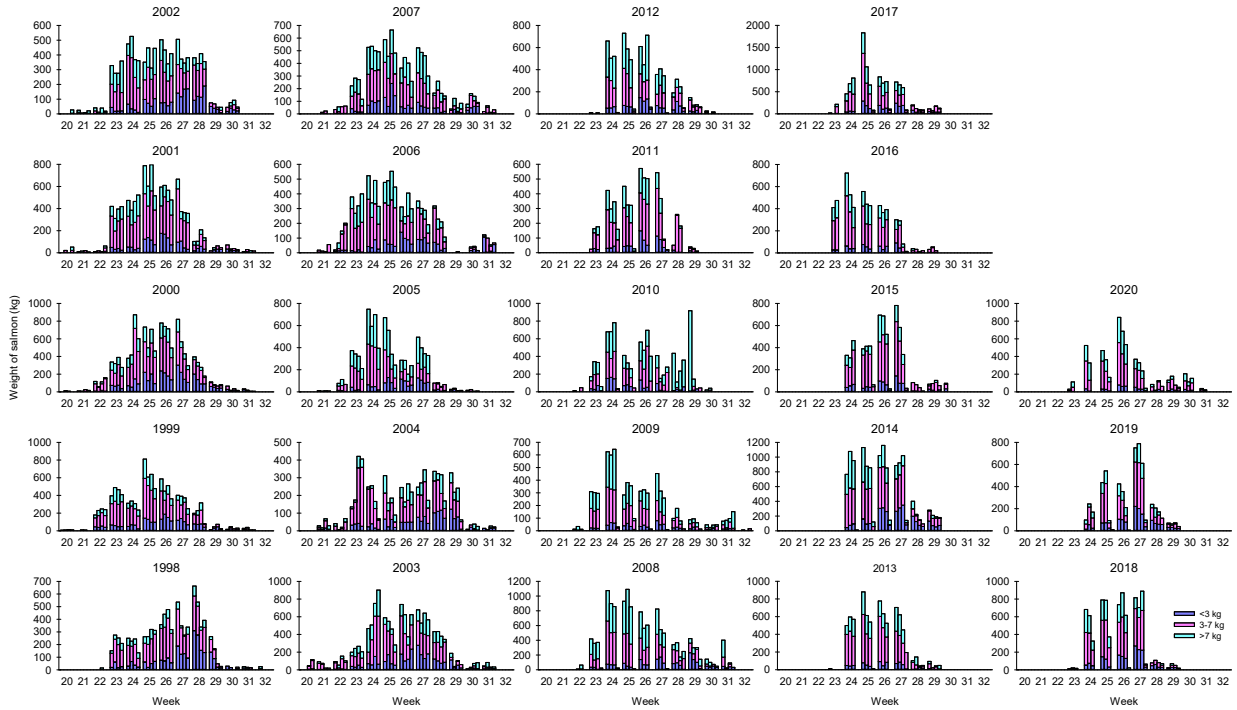


Figure 30. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Nordkapp municipality. Source: SSB

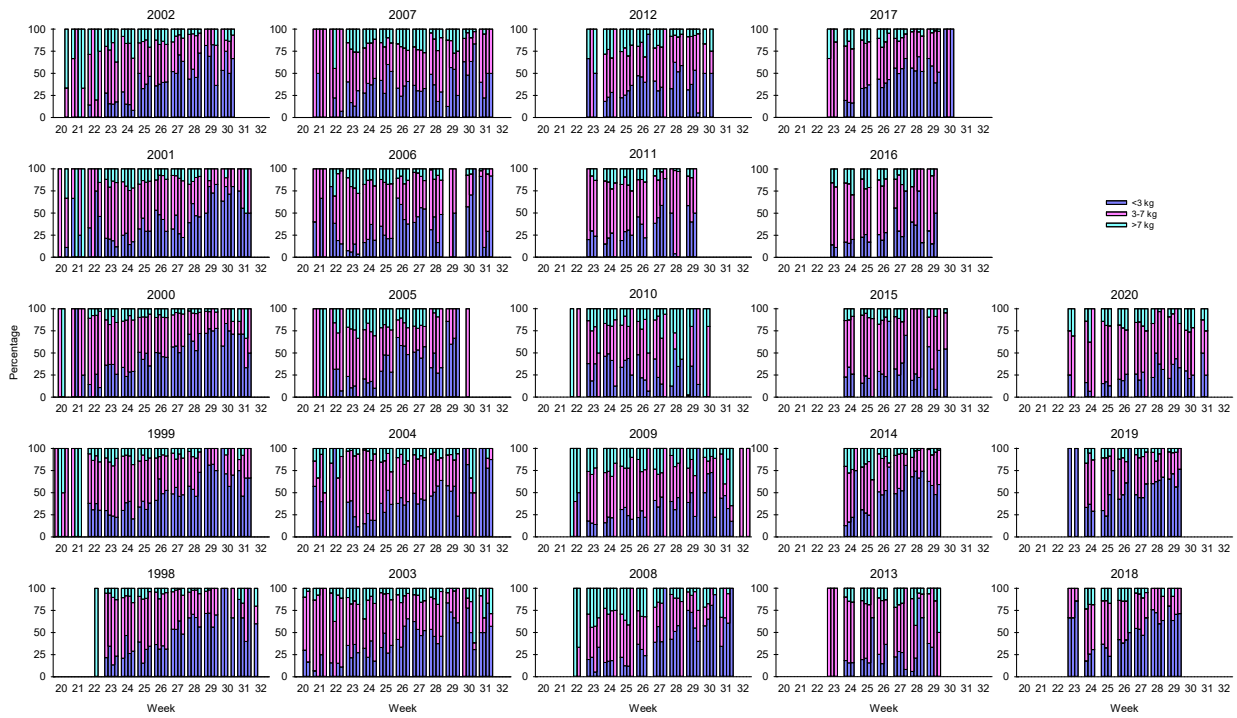


Figure 31. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Nordkapp municipality. Source: SSB

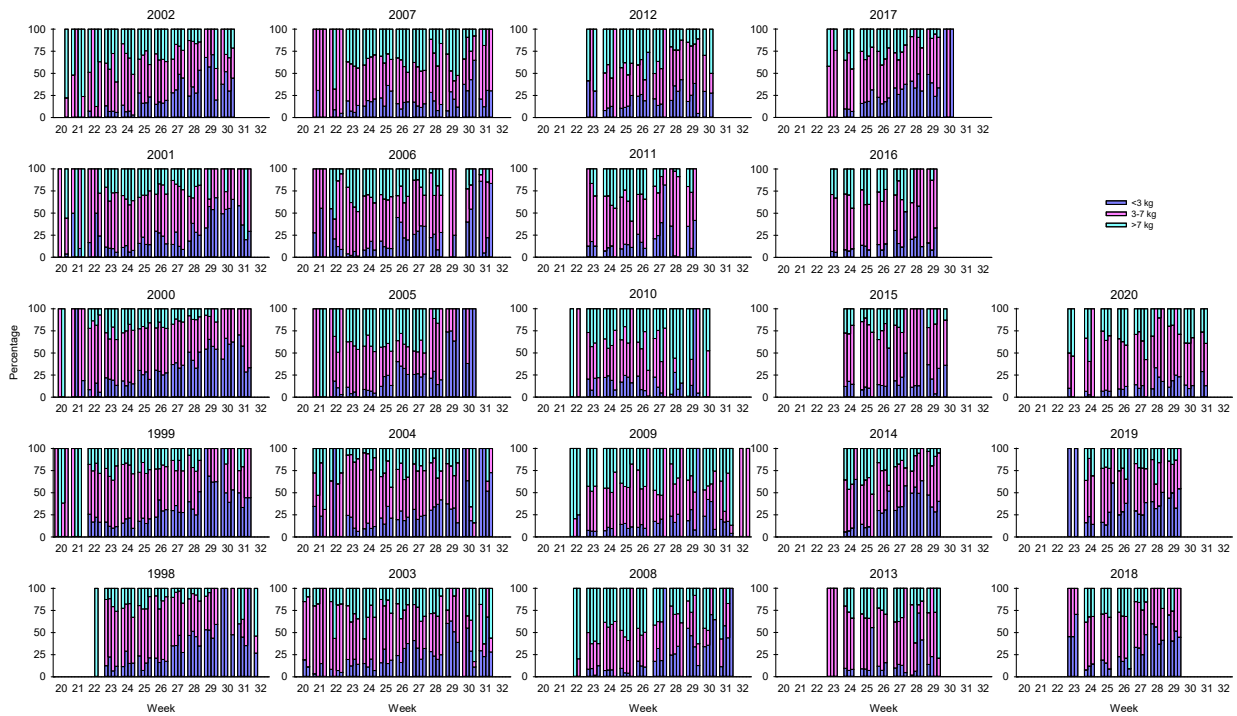


Figure 32. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Nordkapp municipality. Source: SSB

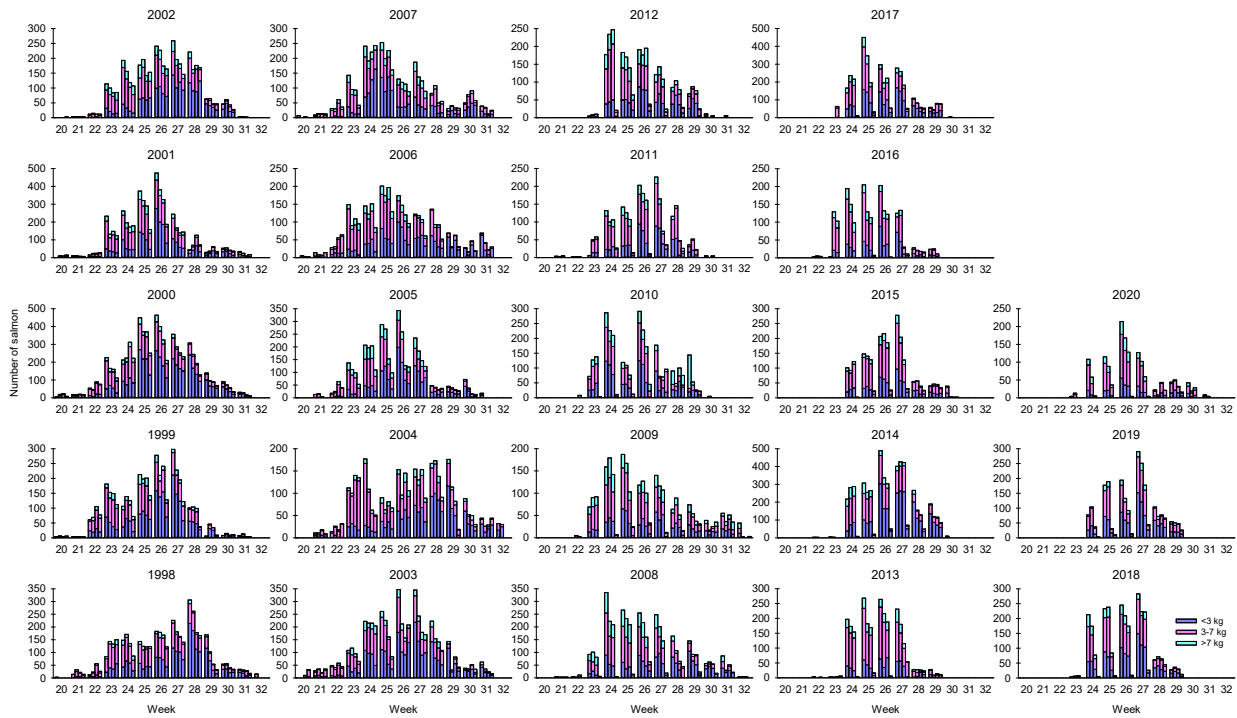


Figure 33. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Måsøy and Nordkapp municipalities. Source: SSB

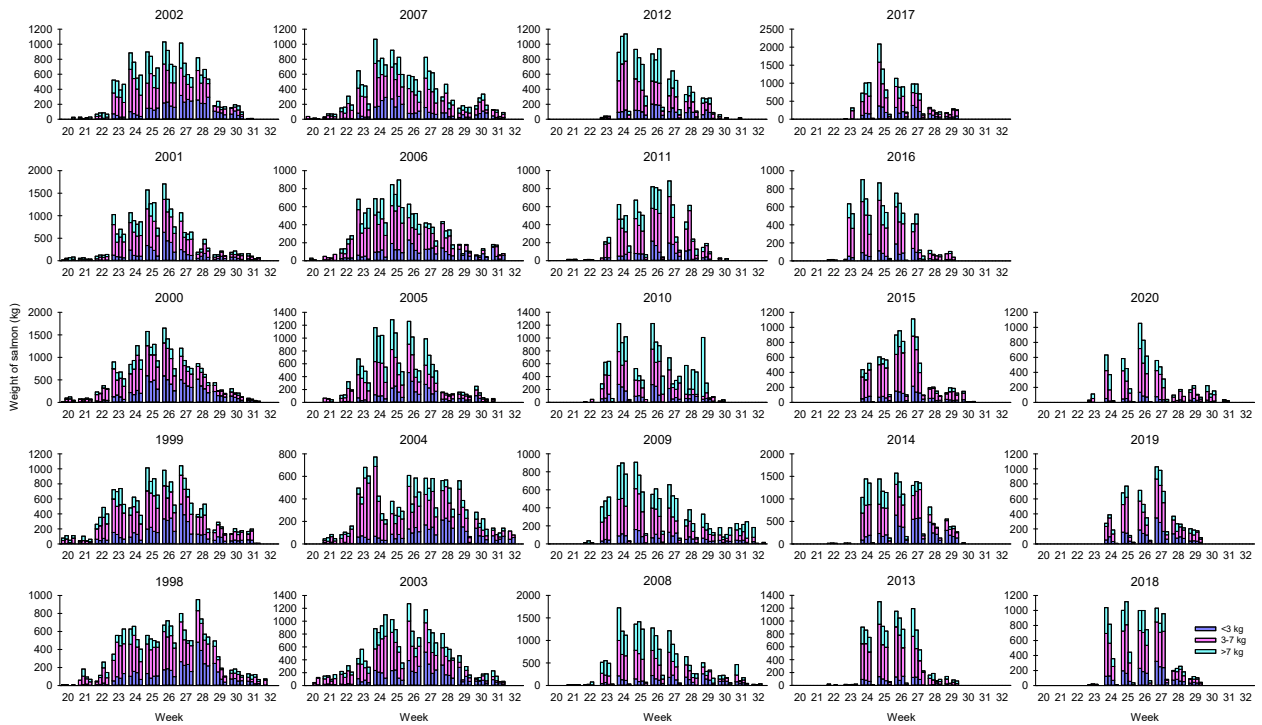


Figure 34. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Måsøy and Nordkapp municipalities. Source: SSB

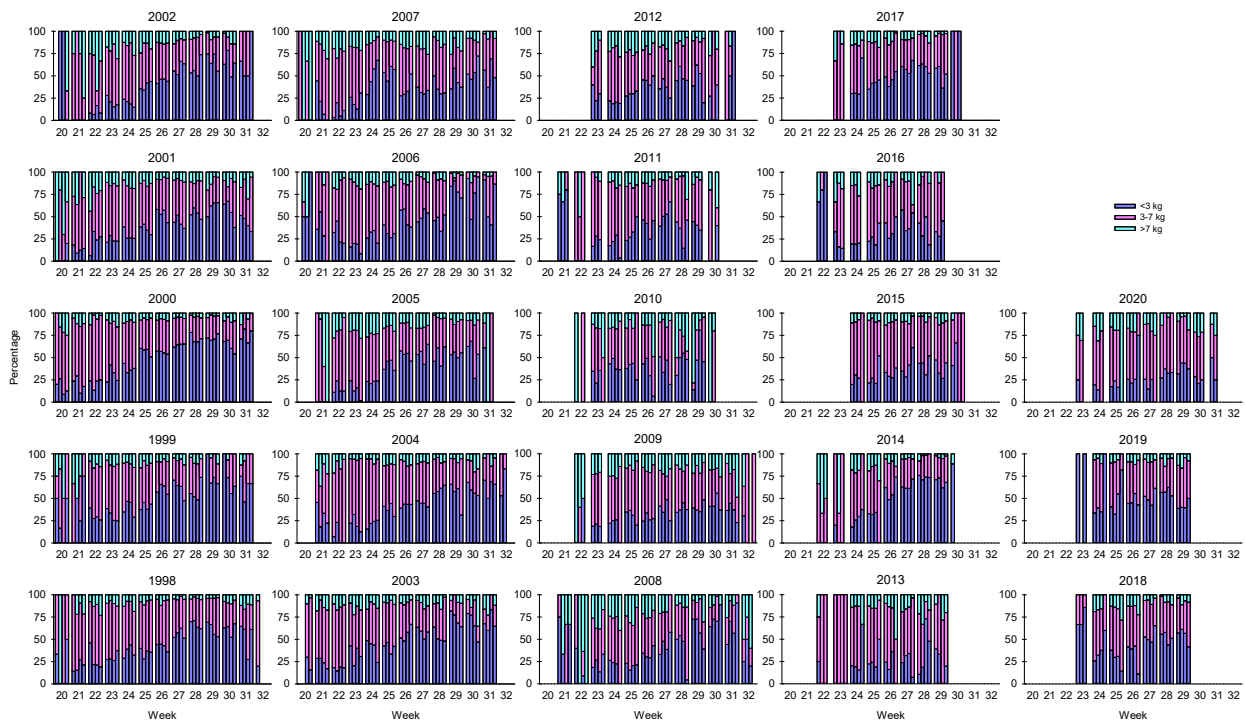


Figure 35. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Måsøy and Nordkapp municipalities. Source: SSB

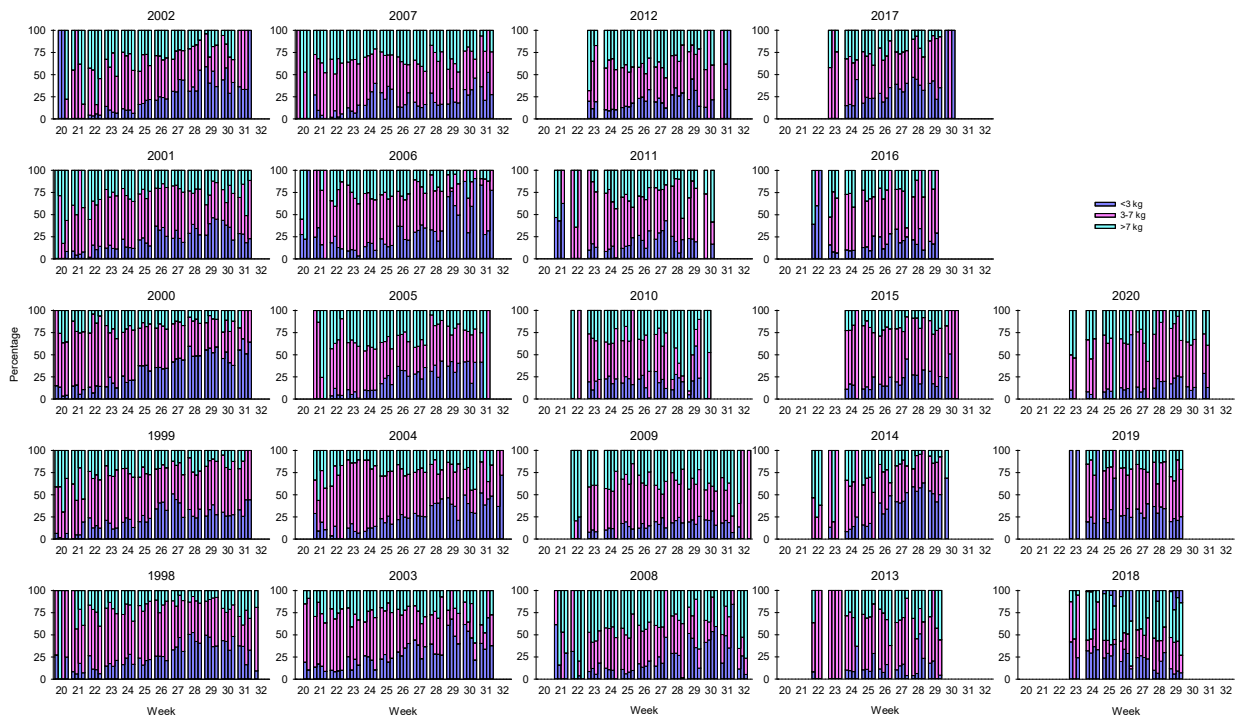


Figure 36. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Måsøy and Nordkapp municipalities. Source: SSB

6. Daily salmon catch distributions throughout the summer (in numbers and weights) reflect the general timing of salmon migrations in the fisheries in Porsanger municipality

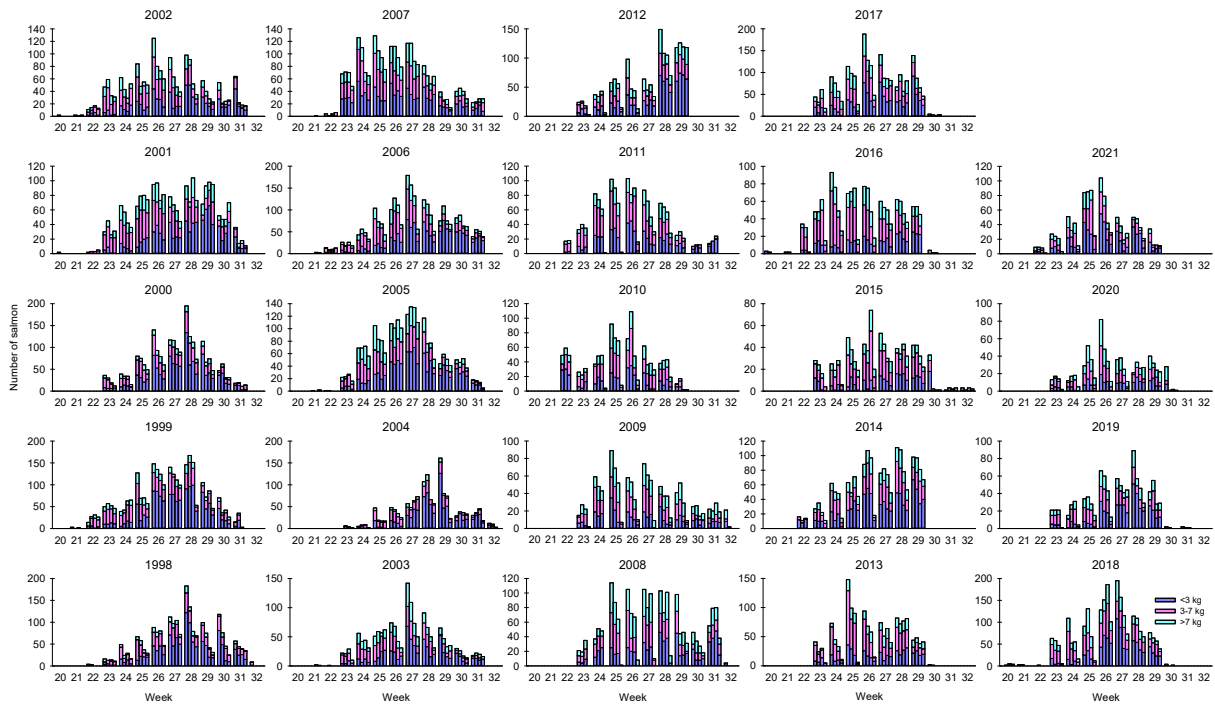


Figure 37. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Porsanger municipality. Source: SSB

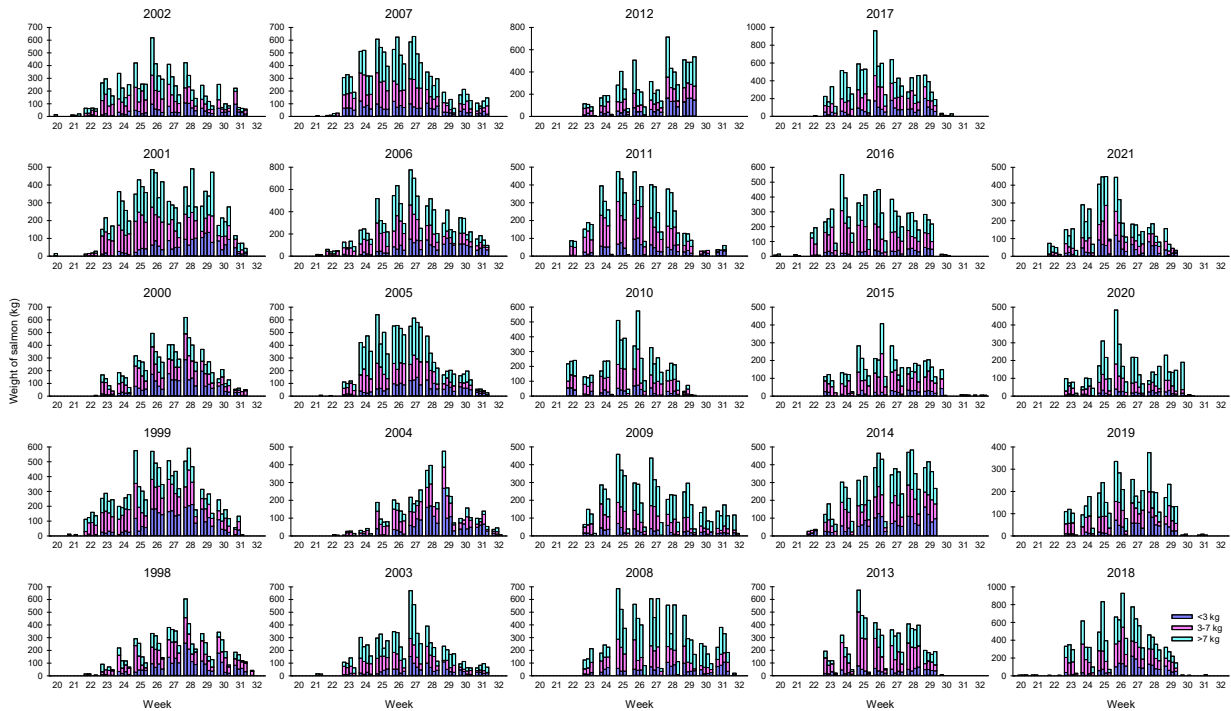


Figure 38. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Porsanger municipality. Source: SSB

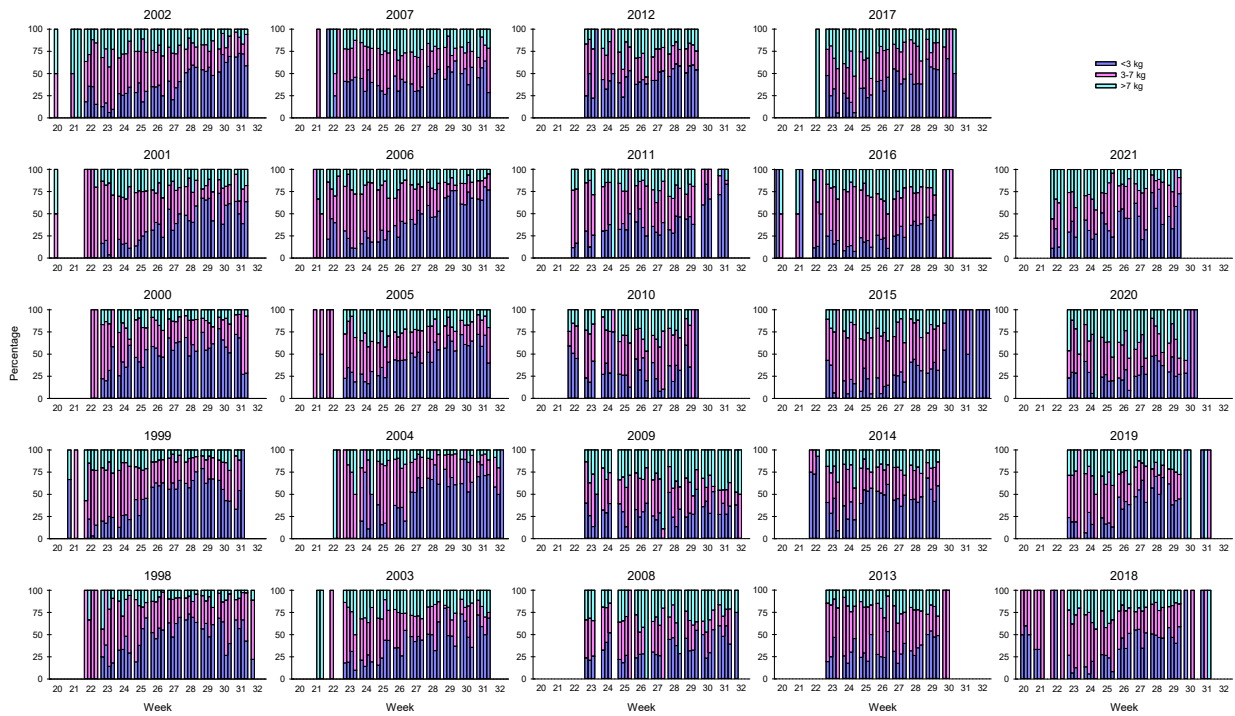


Figure 39. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Porsanger municipality. Source: SSB

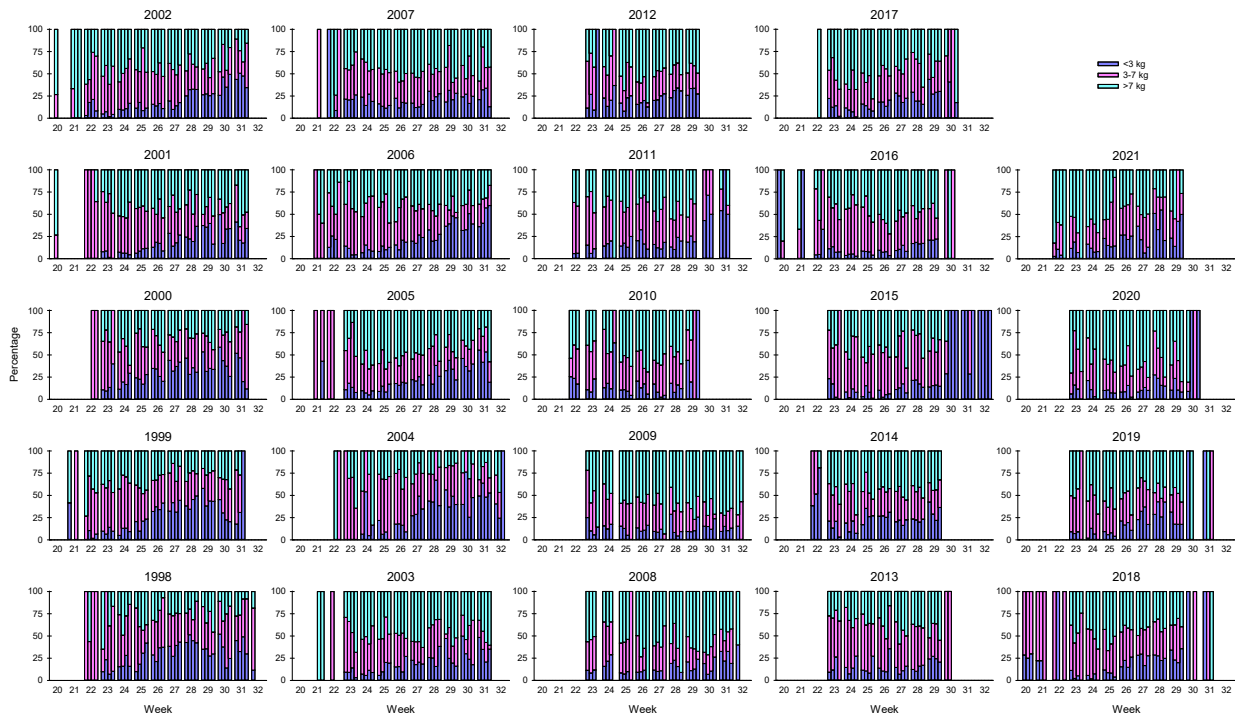


Figure 40. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Porsanger municipality. Source: SSB

7. Daily salmon catch distributions throughout the summer (in numbers and weights) reflects the general timing of salmon migrations in the fisheries in Lebesby municipality

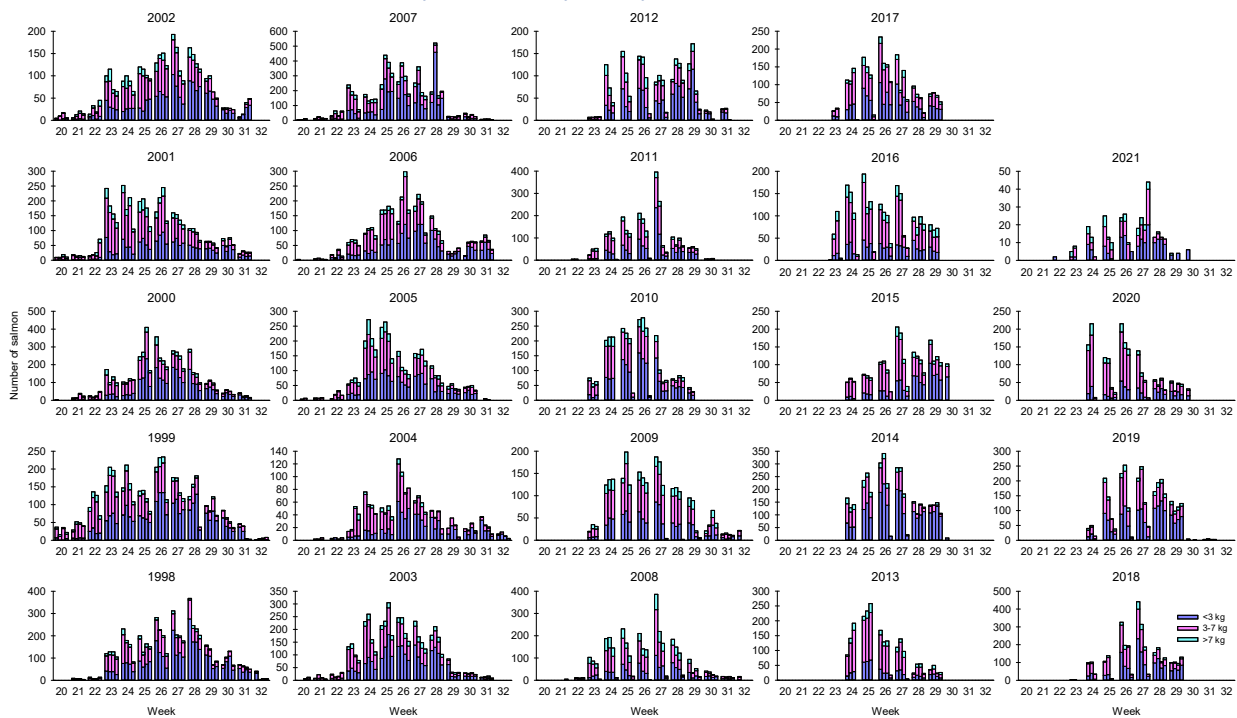


Figure 41. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Lebesby municipality. Source: SSB

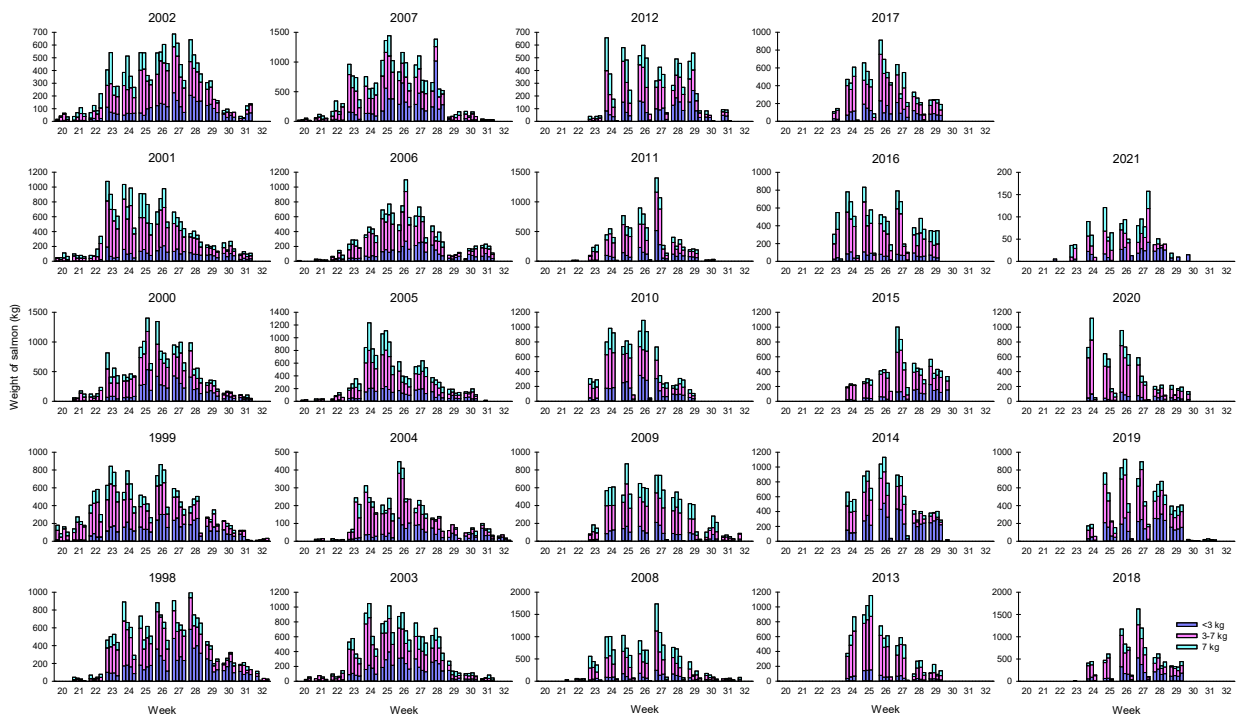


Figure 42. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Lebesby municipality. Source: SSB

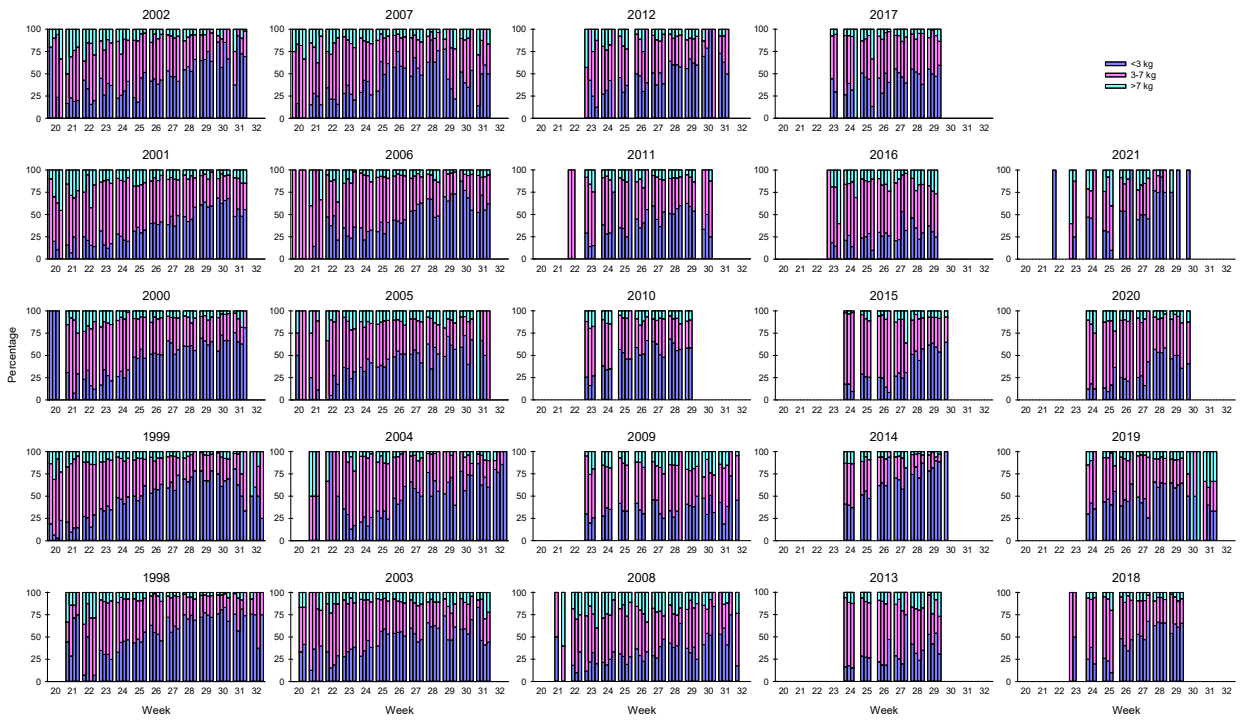


Figure 43. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Lebesby municipality. Source: SSB

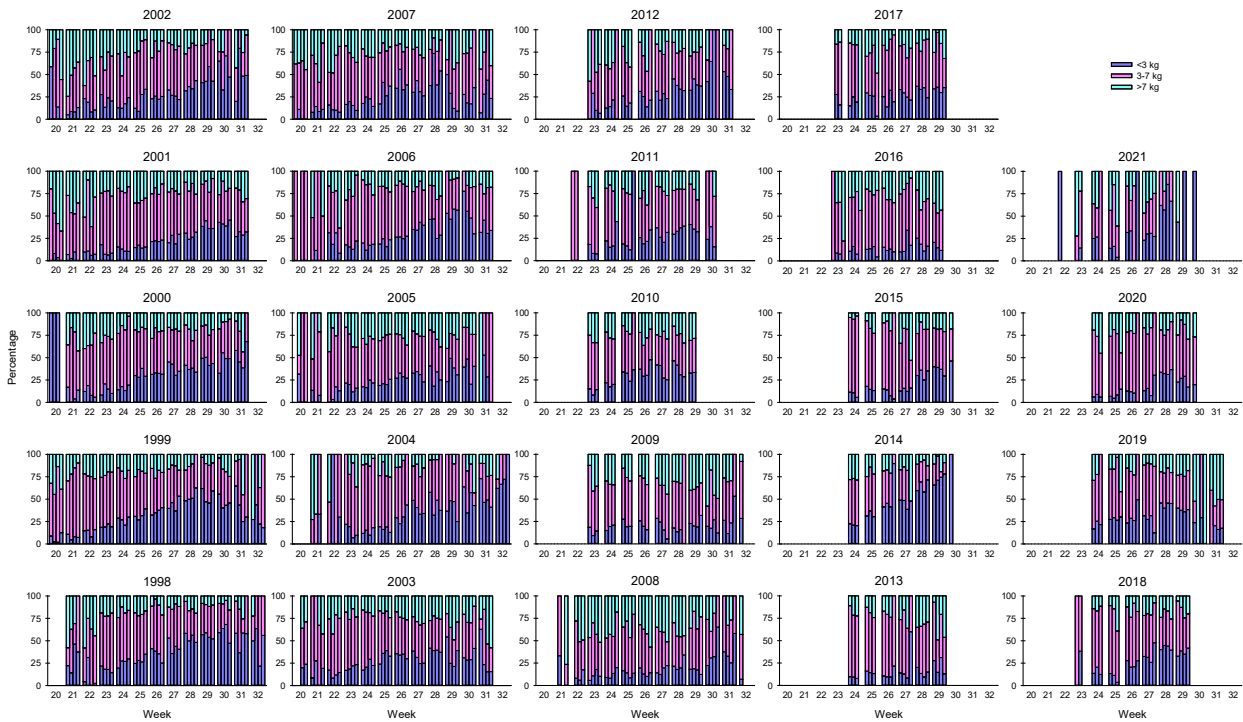


Figure 44. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Lebesby municipality. Source: SSB

8. Daily salmon catch distributions throughout the summer (in numbers and weights) reflect the general timing of salmon migrations in the fisheries in Gamvik municipality

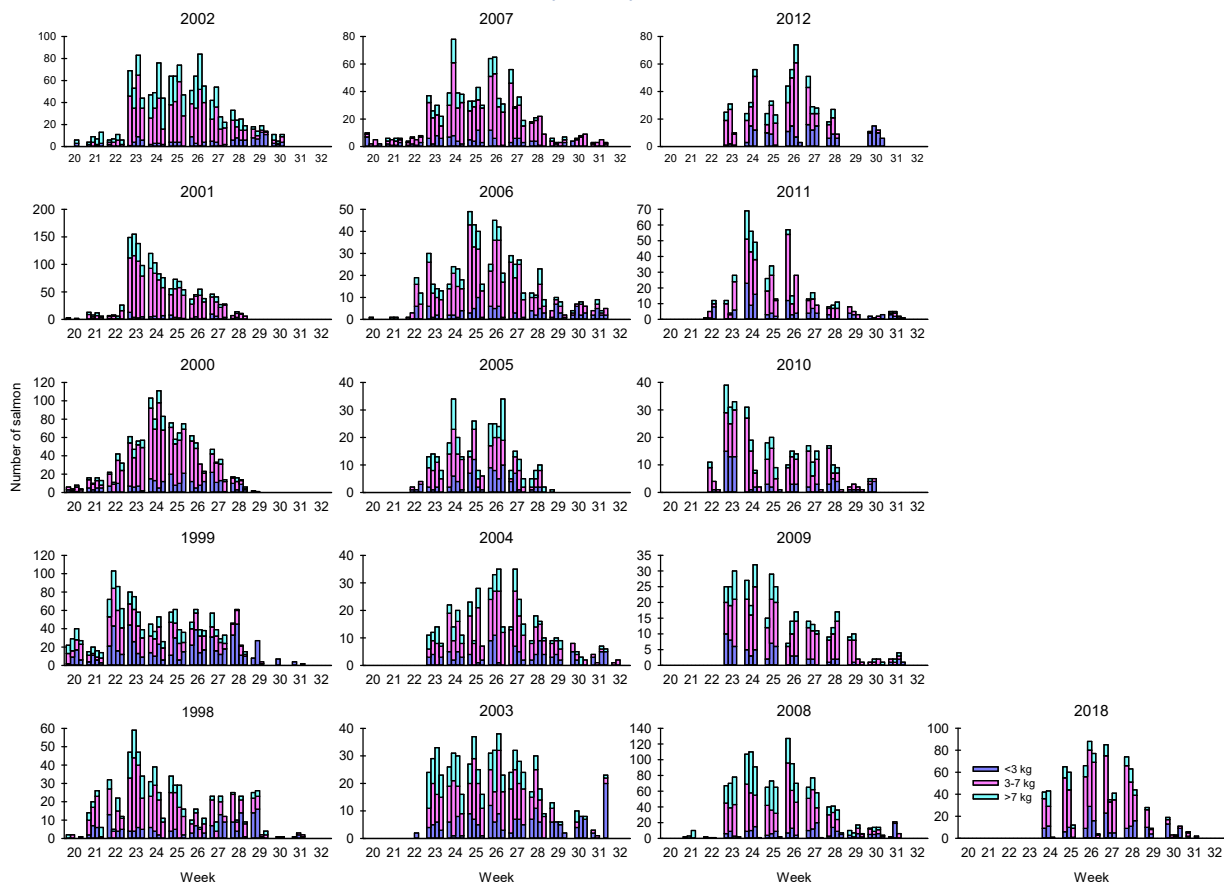


Figure 45. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Gamvik municipality. Source: SSB

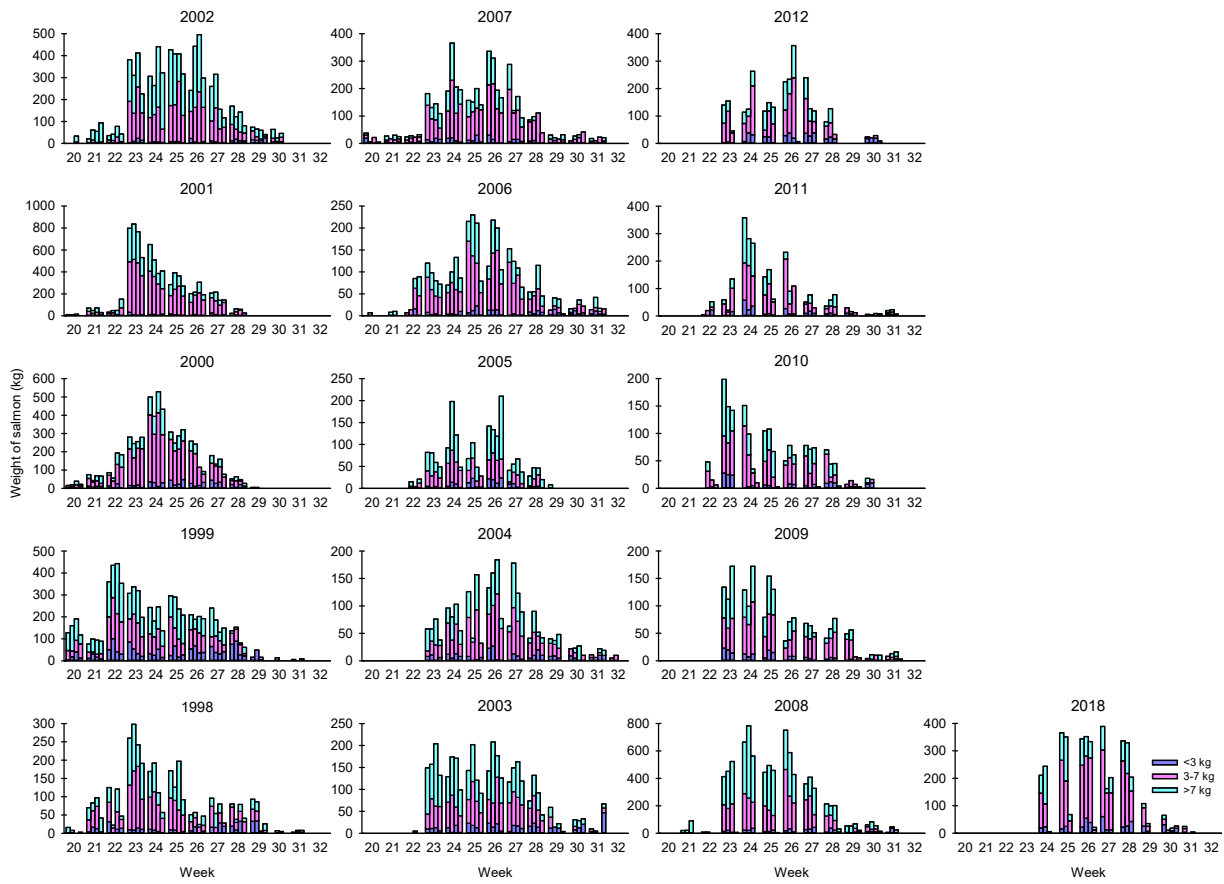


Figure 46. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Gamvik municipality. Source: SSB

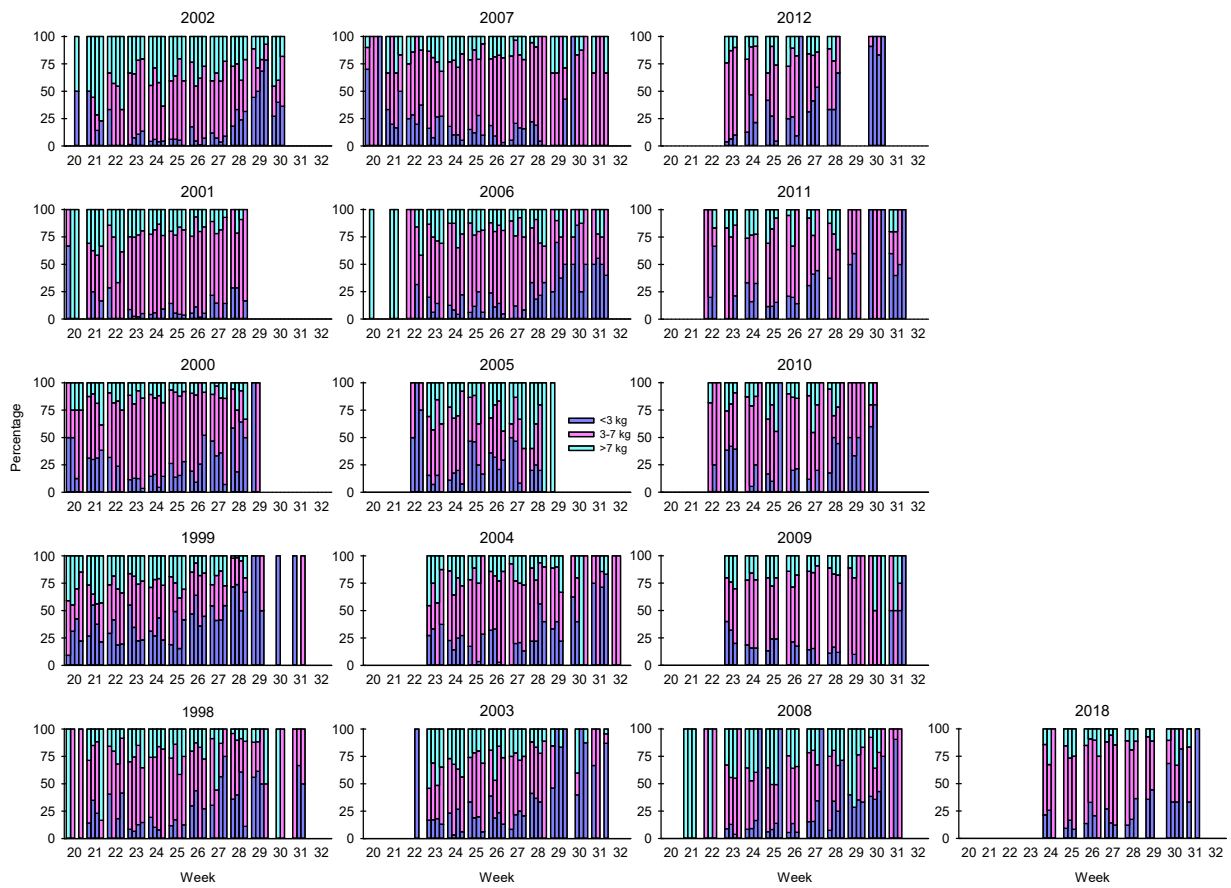


Figure 47. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Gamvik municipality. Source: SSB

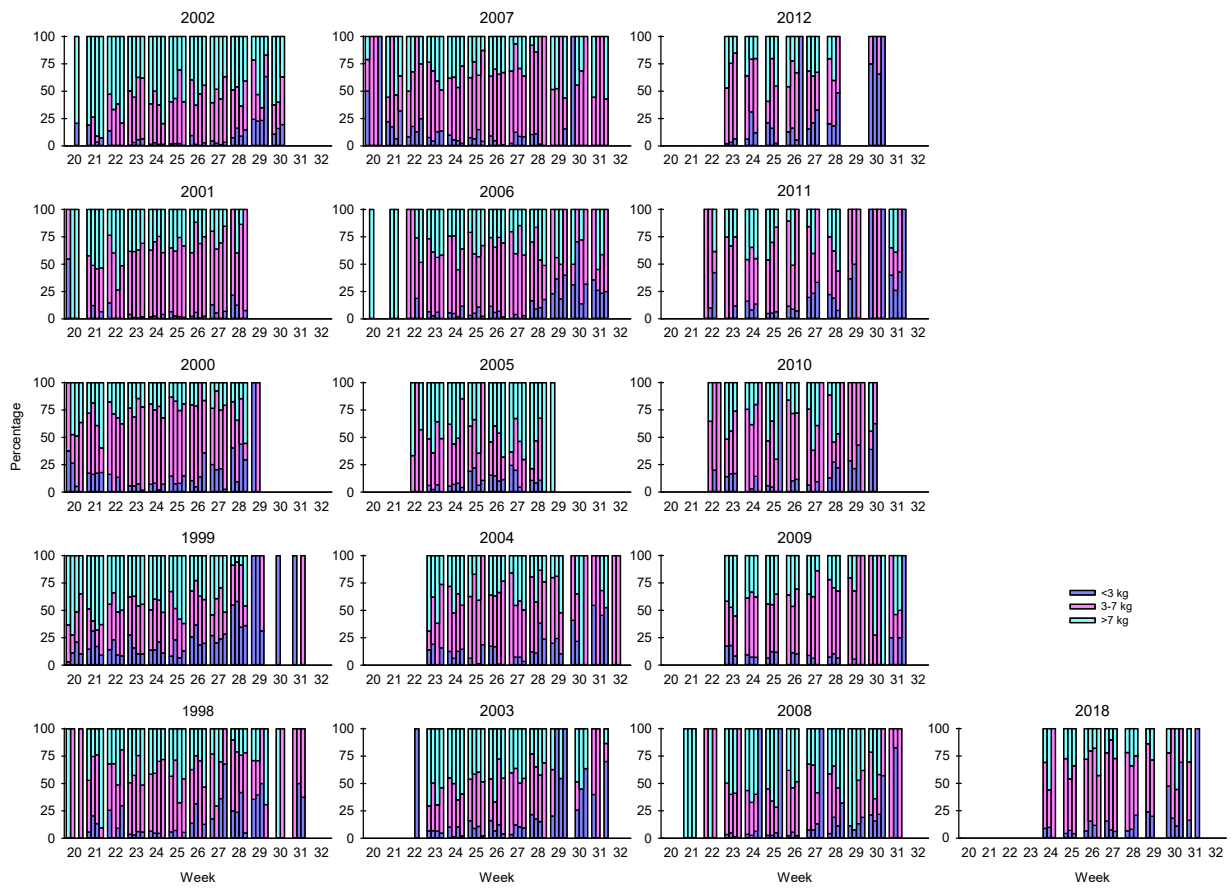


Figure 48. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Gamvik municipality. Source: SSB

9. Daily salmon catch distributions throughout the summer (in numbers and weights) reflects the general timing of salmon migrations in the fisheries in Tana municipality

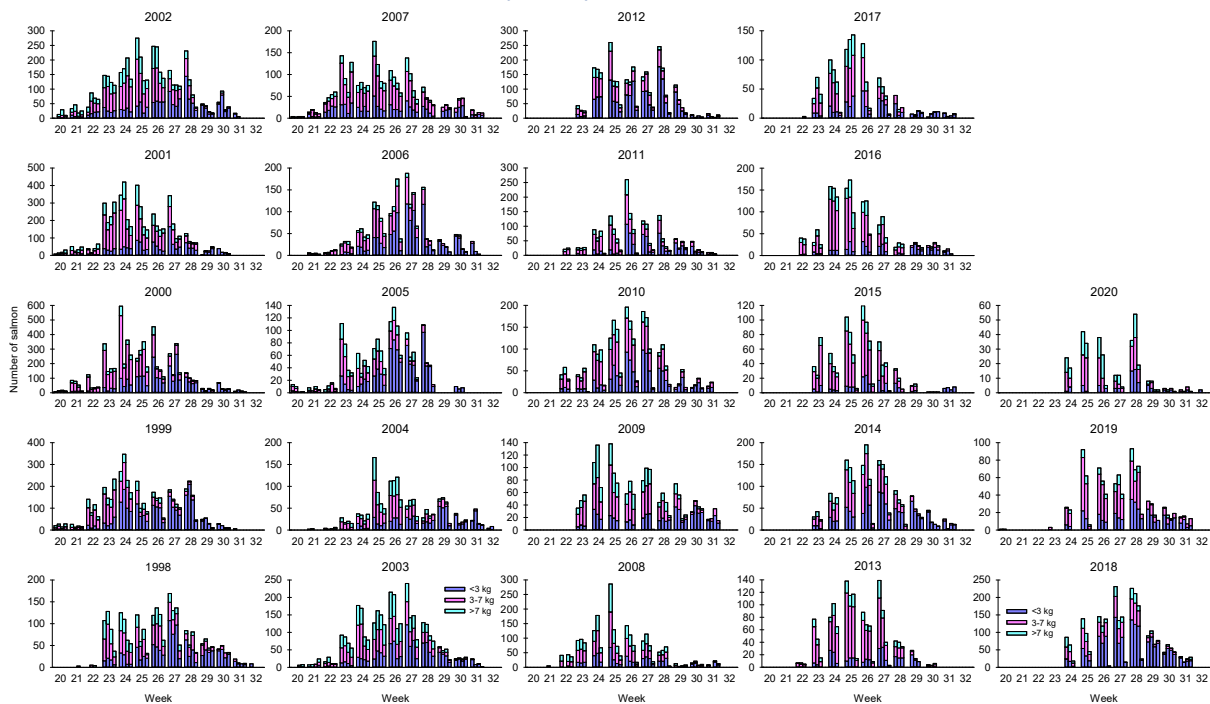


Figure 49. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Tana municipality. Source: SSB

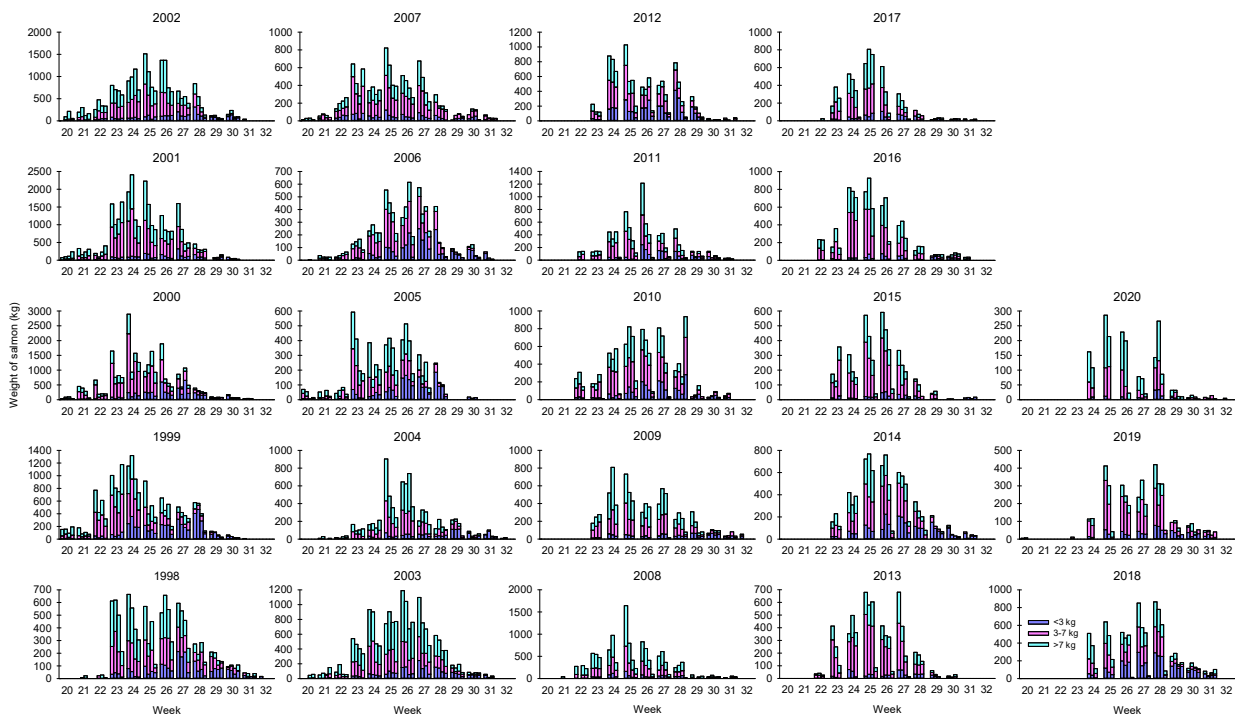


Figure 50. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Tana municipality. Source: SSB

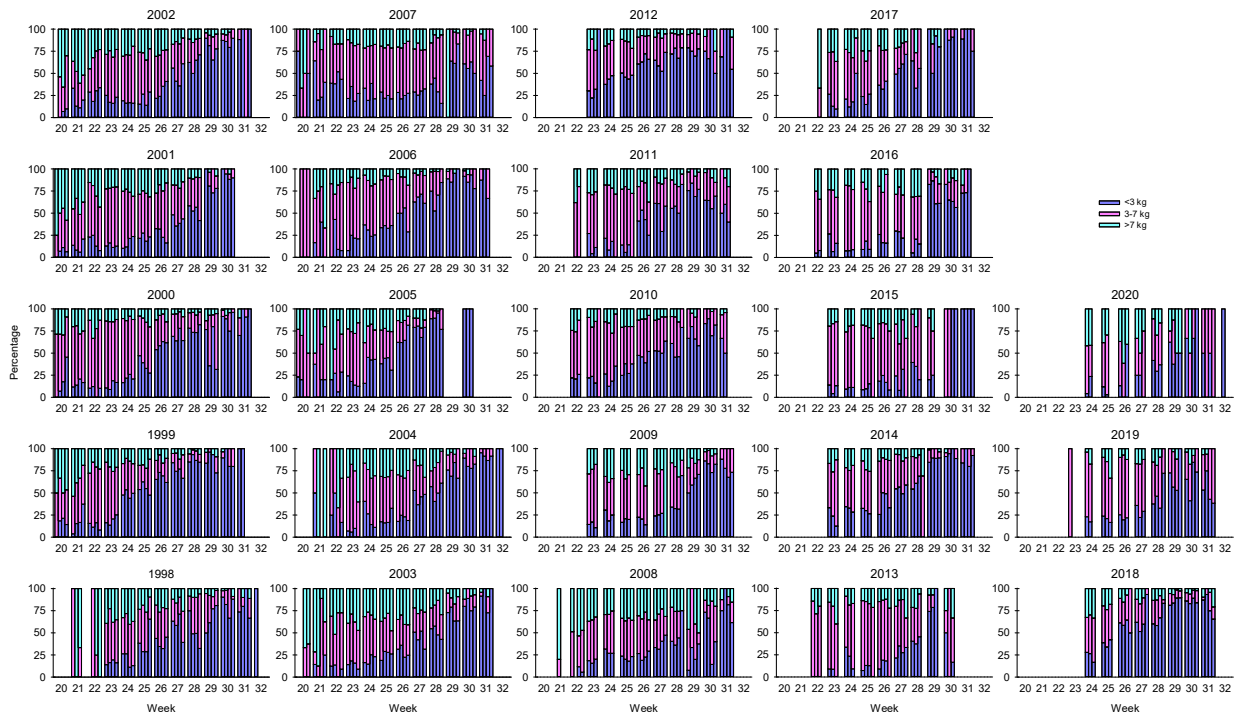


Figure 51. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Tana municipality. Source: SSB

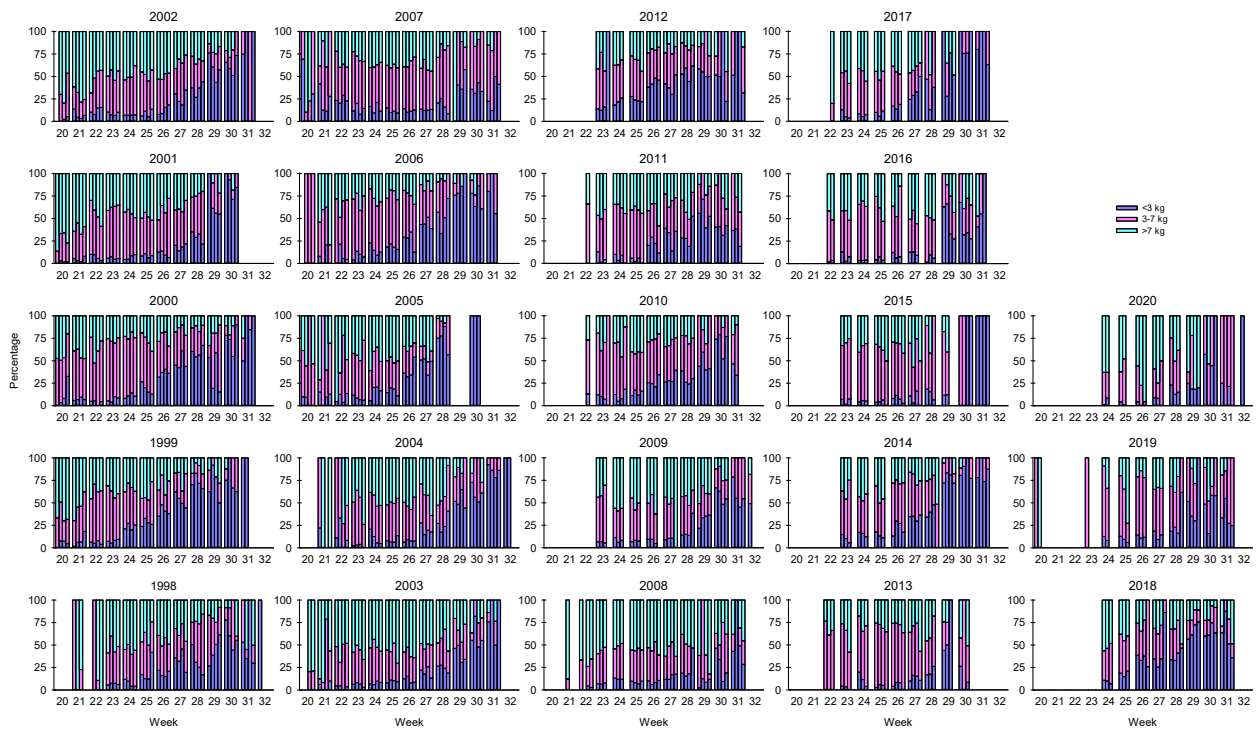


Figure 52. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Tana municipality. Source: SSB

10. Daily salmon catch distributions throughout the summer (in numbers and weight) reflect the general timing of salmon migrations in the fisheries in Berlevåg municipality

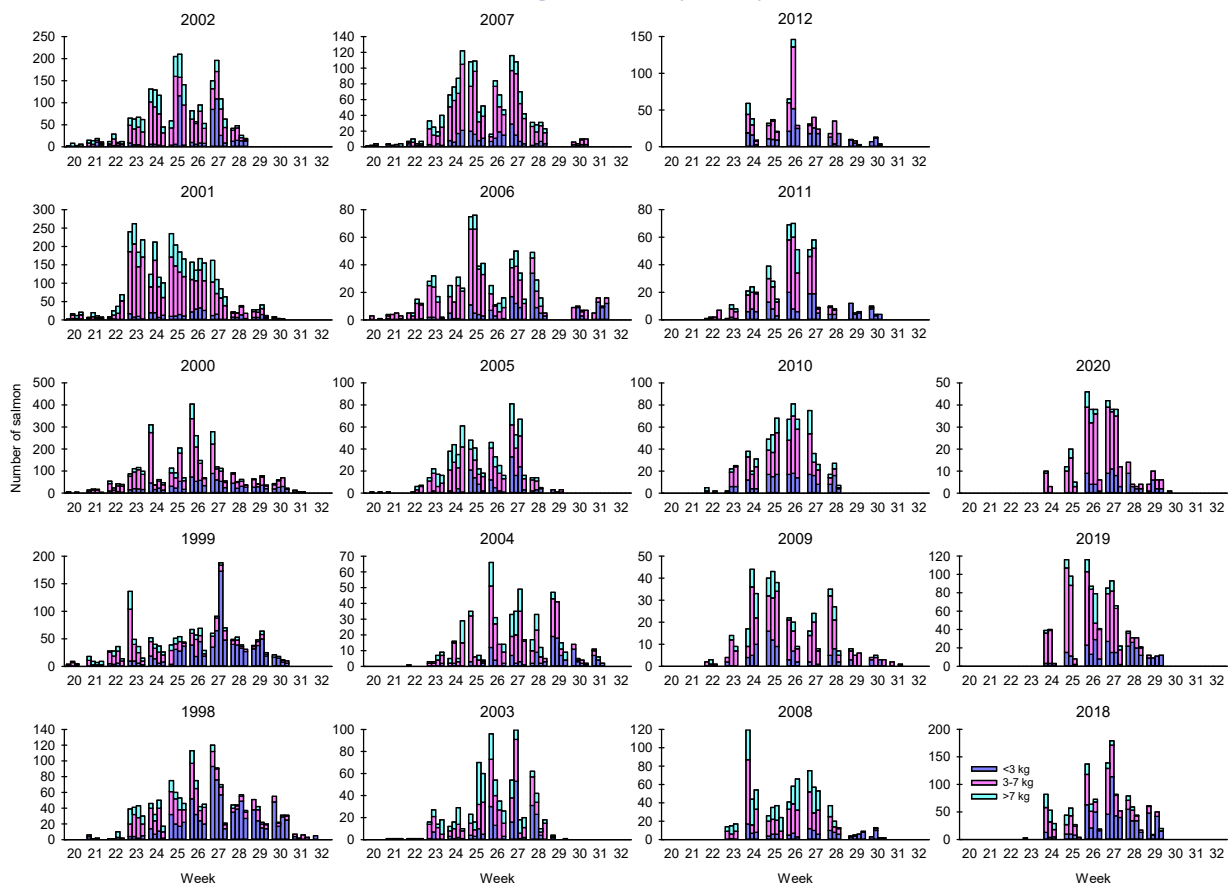


Figure 53. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Berlevåg municipality. Source: SSB

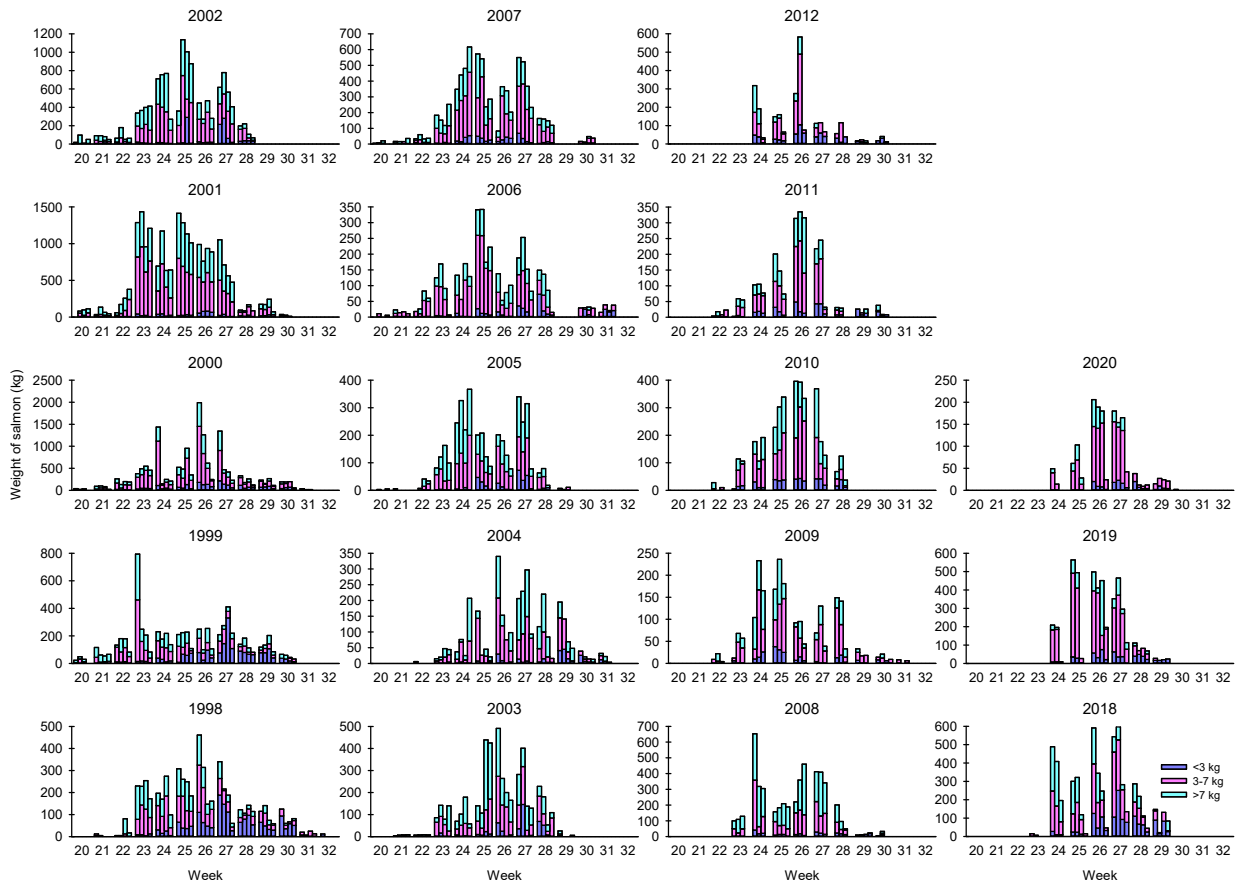


Figure 54. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Berlevåg municipality. Source: SSB

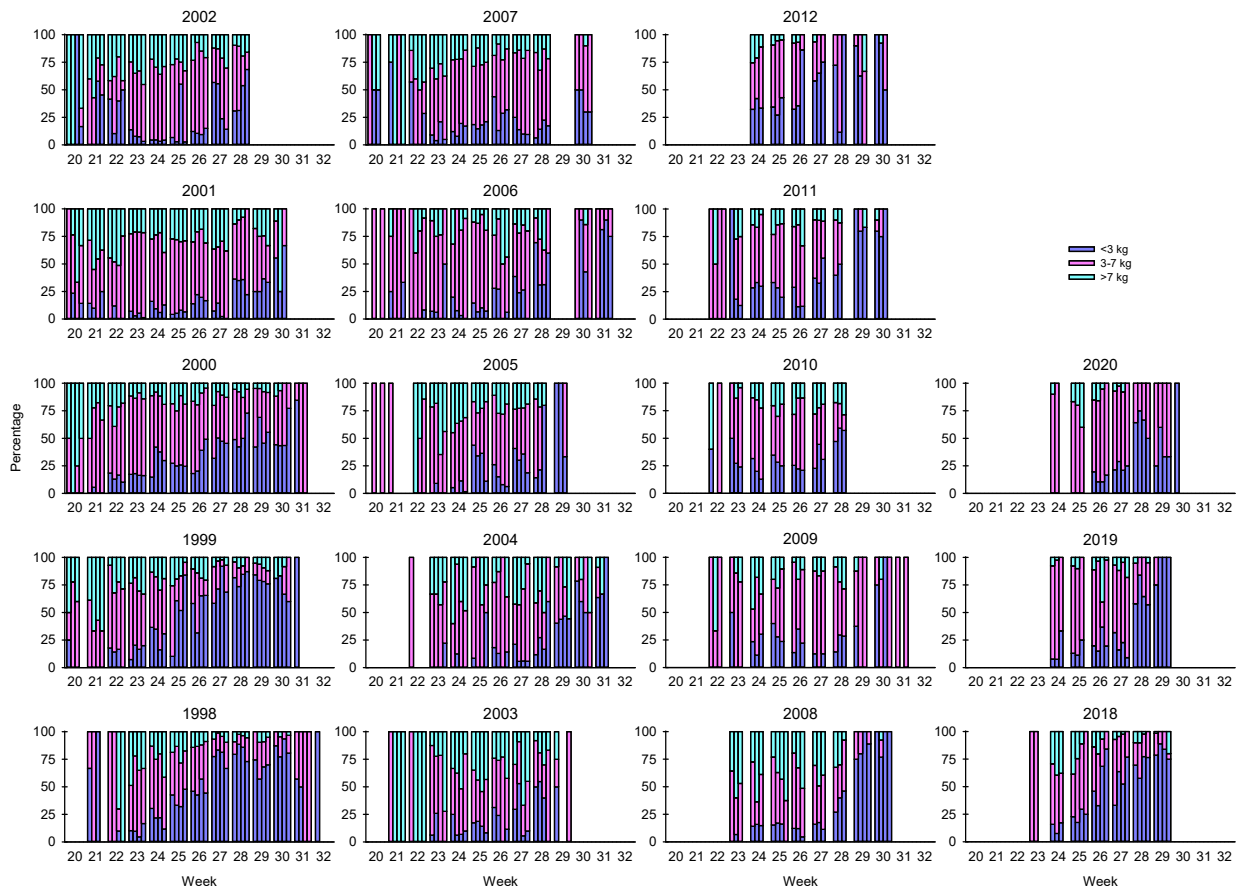


Figure 55. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Berlevåg municipality. Source: SSB

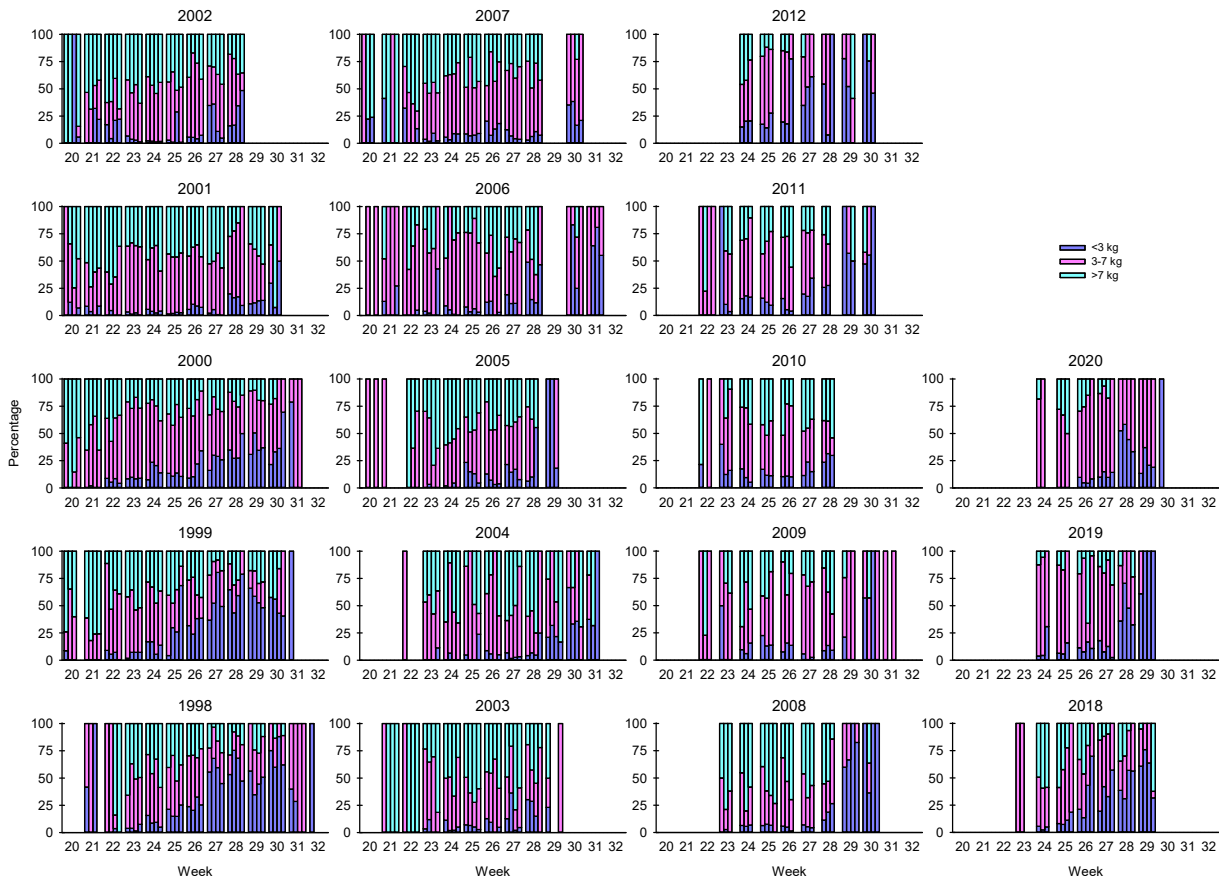


Figure 56. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Berlevåg municipality. Source: SSB

11. Daily salmon catch distributions throughout the summer (in numbers and weight) reflect the general timing of salmon migrations in the fisheries in Gamvik, Tana and Berlevåg municipalities

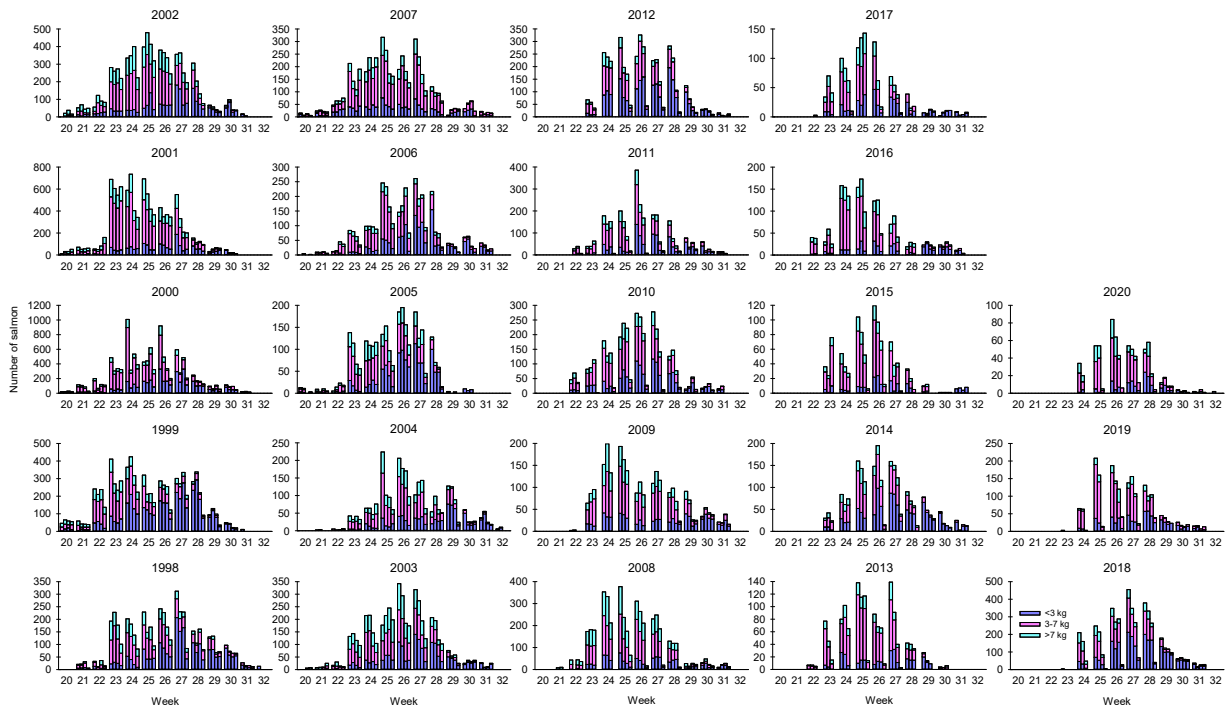


Figure 57. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Gamvik, Tana and Berlevåg municipalities. Source: SSB

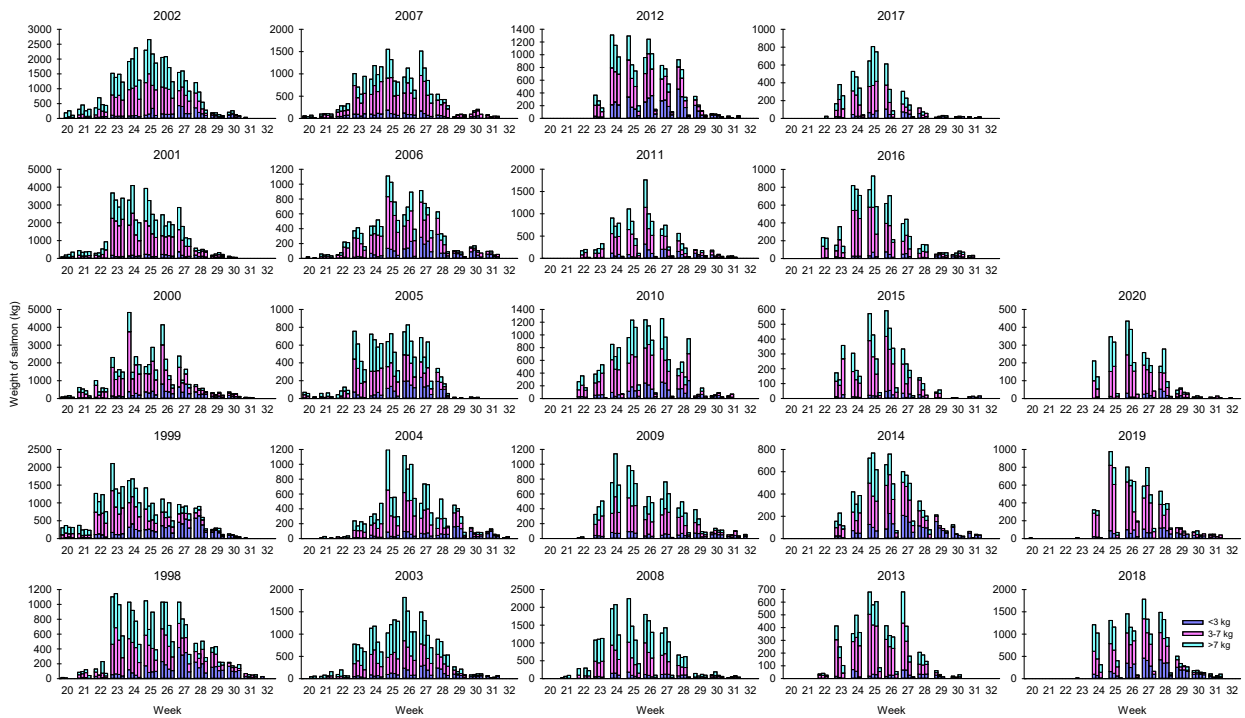


Figure 58. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Gamvik, Tana and Berlevåg municipalities. Source: SSB

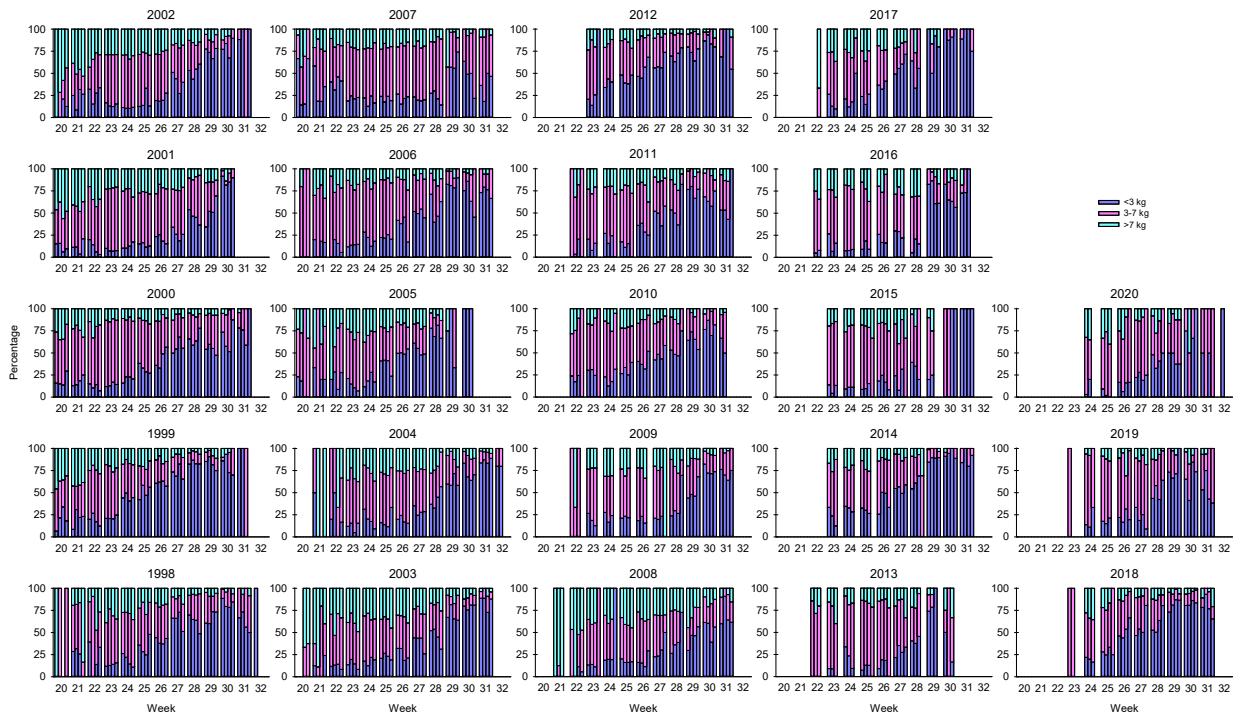


Figure 58. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Gamvik, Tana and Berlevåg municipalities. Source: SSB

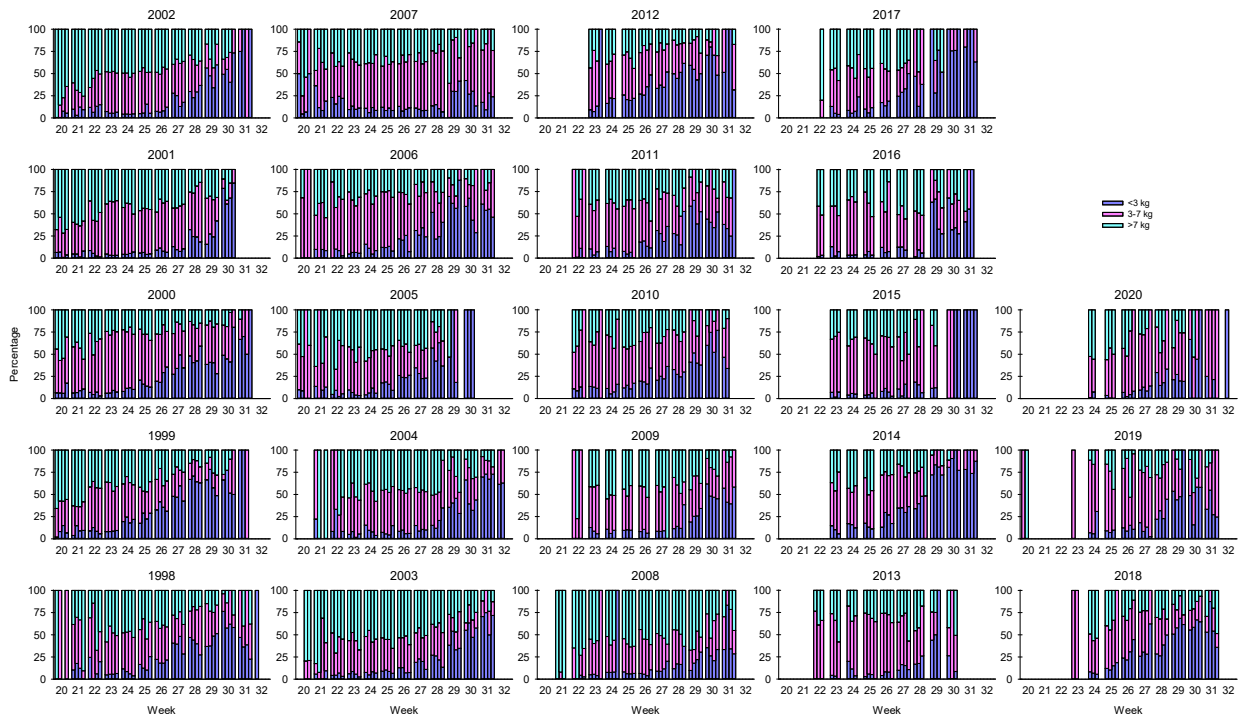


Figure 60. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Gamvik, Tana and Berlevåg municipalities. Source: SSB

12. Daily salmon catch distributions throughout the summer (in numbers and weight) reflect the general timing of salmon migrations in the fisheries in Vadsø and Nesseby municipalities

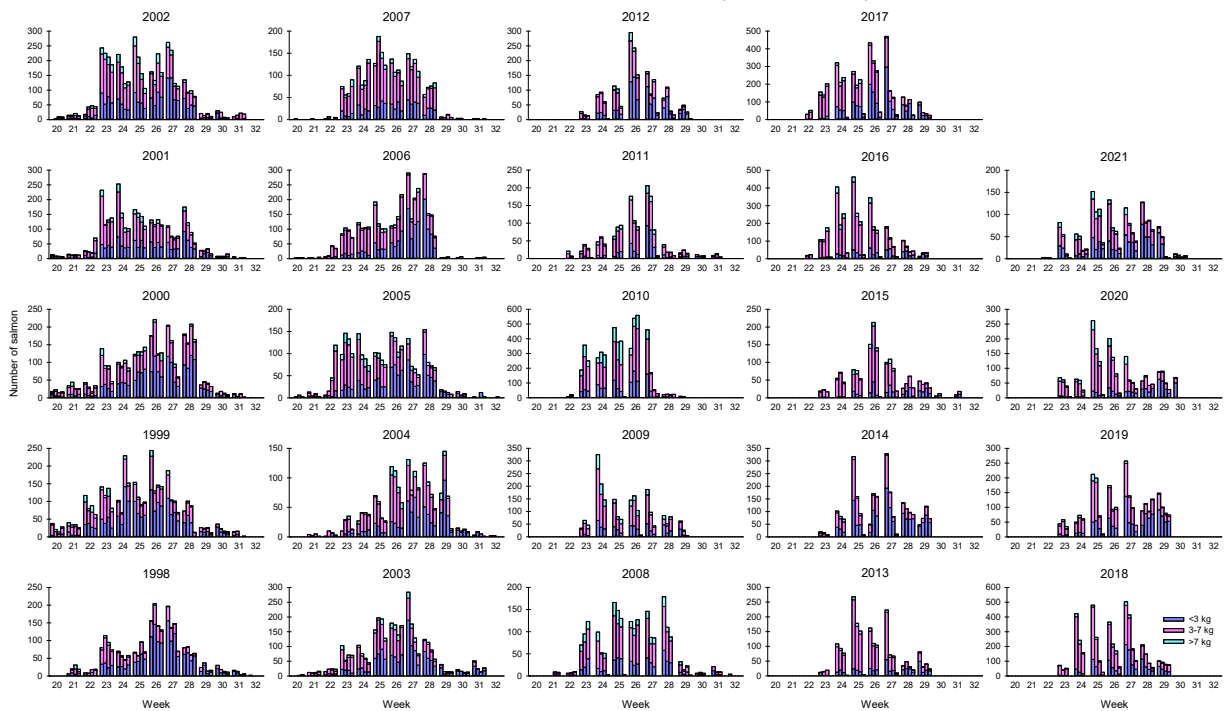


Figure 61. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Vadsø and Nesseby municipalities. Source: SSB

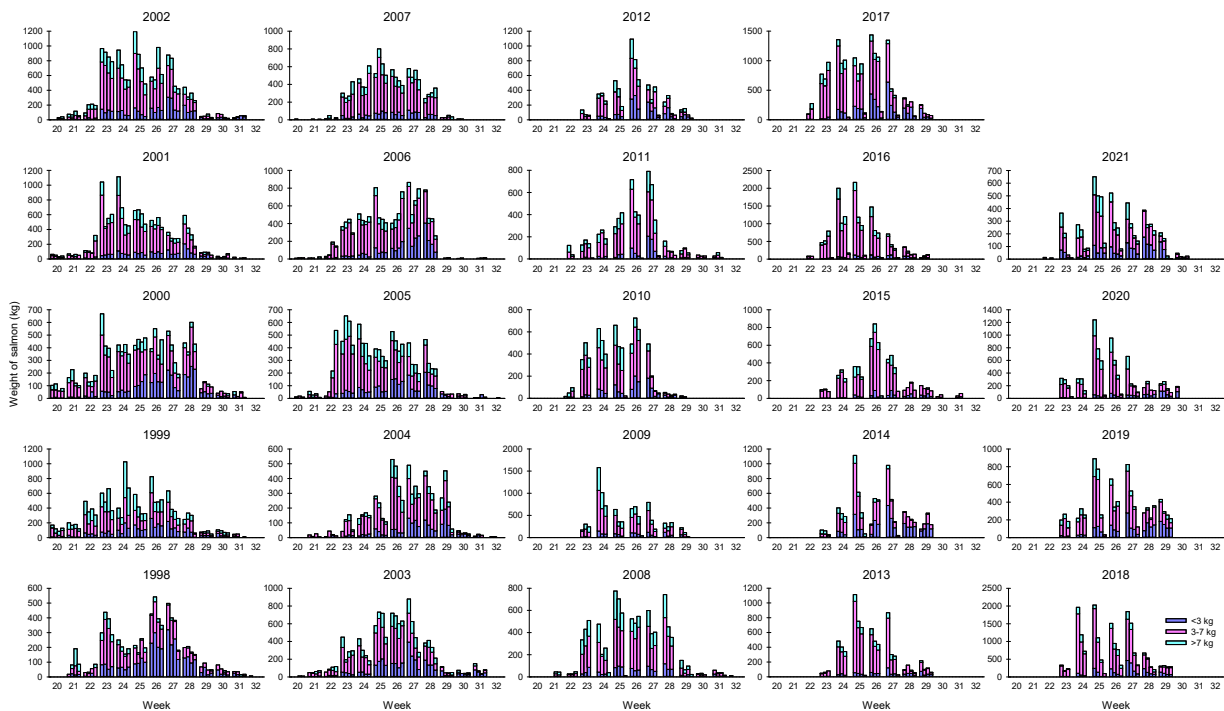


Figure 62. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Vadsø and Nesseby municipalities. Source: SSB

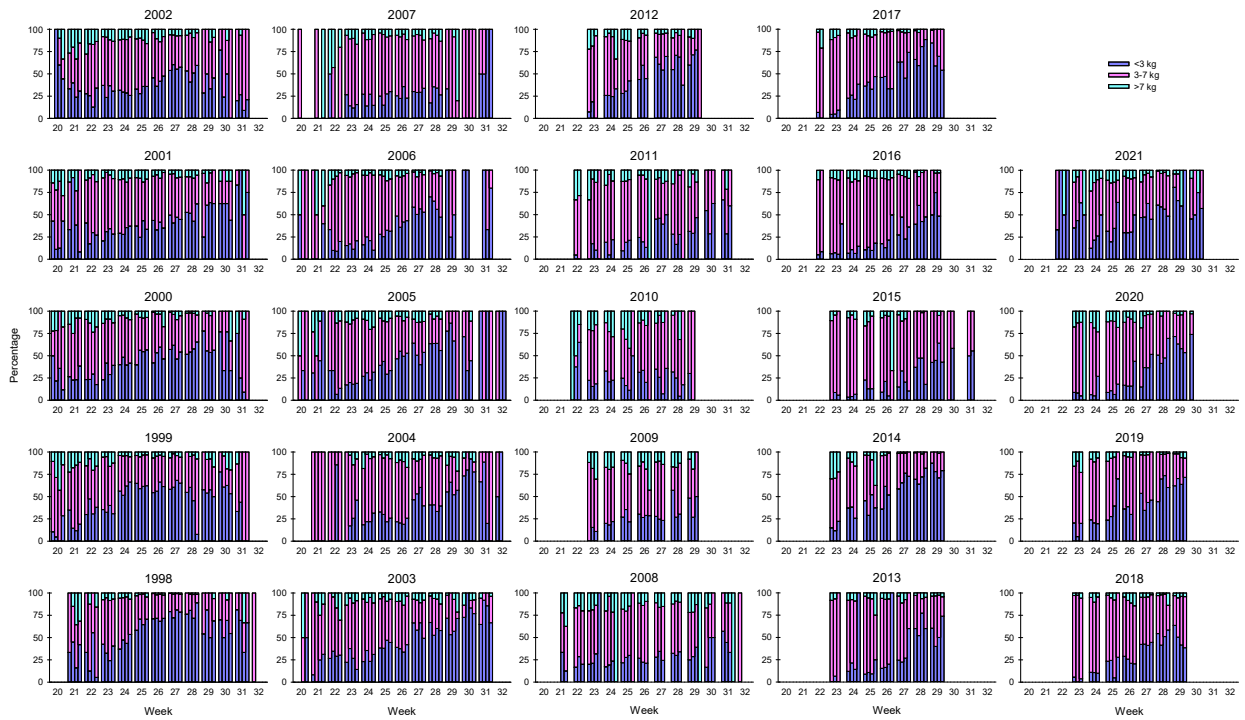


Figure 63. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Vadsø and Nesseby municipalities. Source: SSB

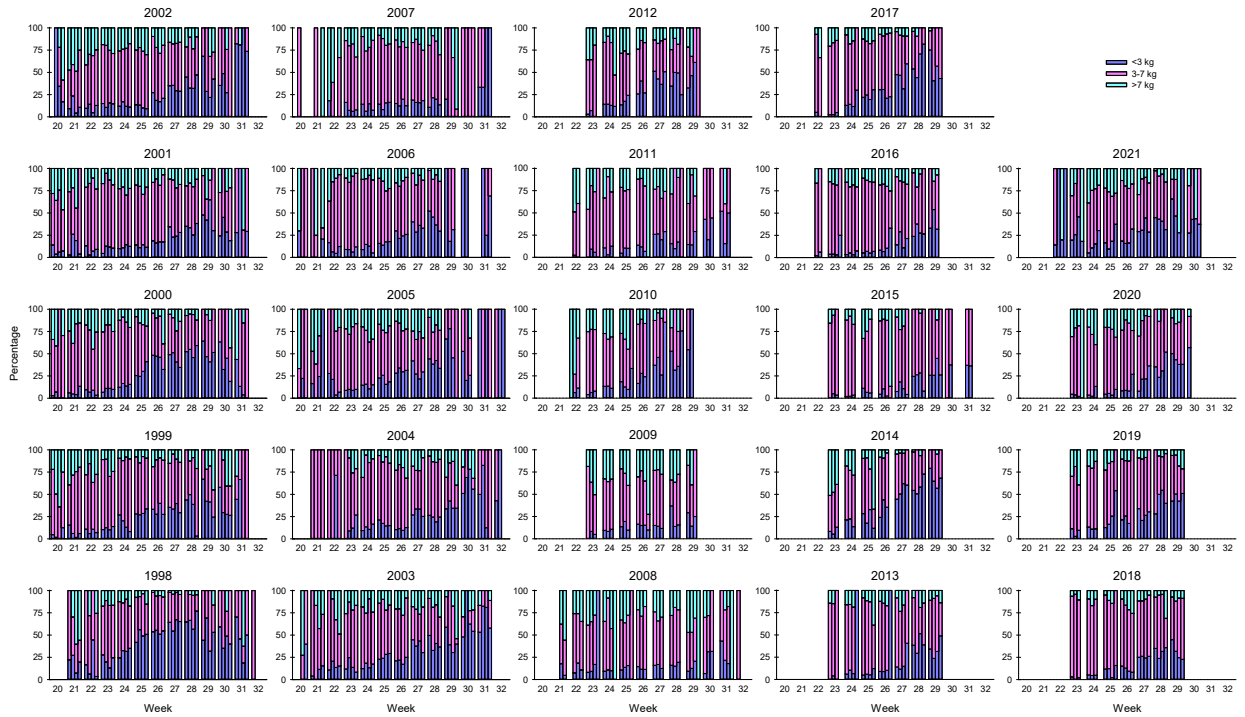


Figure 64. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Vadsø and Nesseby municipalities. Source: SSB

13. Daily salmon catch distributions throughout the summer in numbers and weights reflects the general timing of salmon migrations in the fisheries in Sør-Varanger municipality

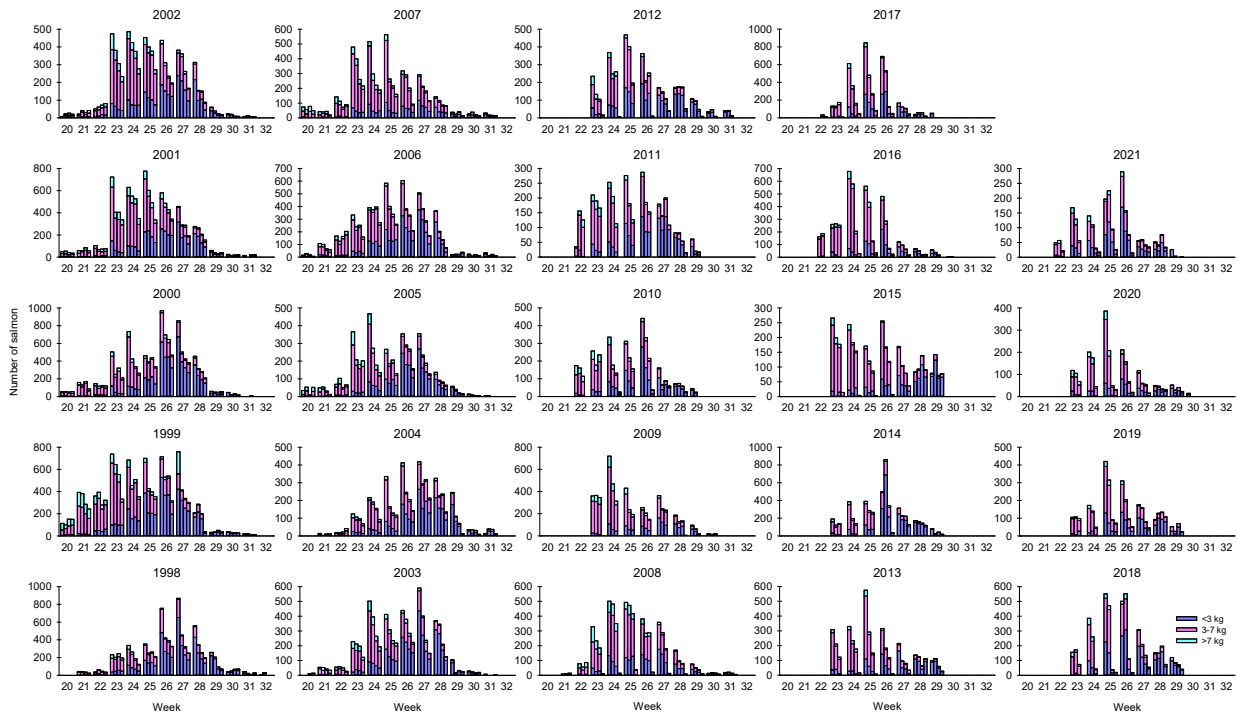


Figure 65. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Sør-Varanger municipality. Source: SSB

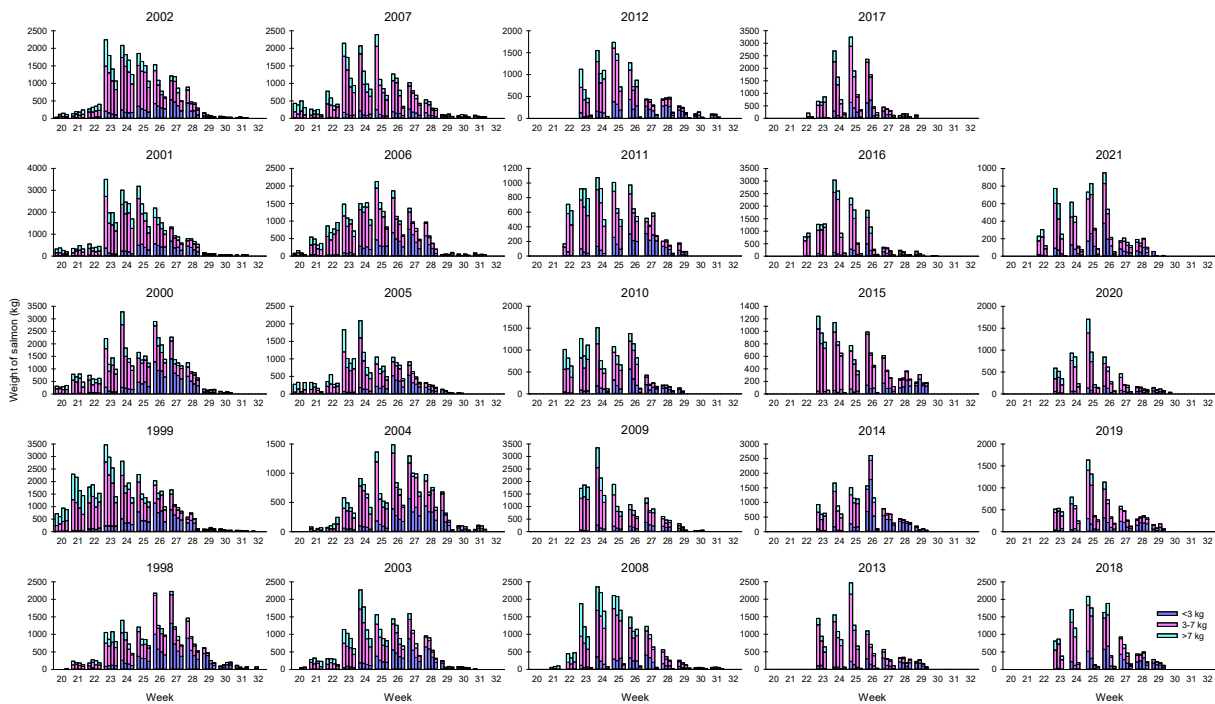


Figure 66. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Sør-Varanger municipality. Source: SSB

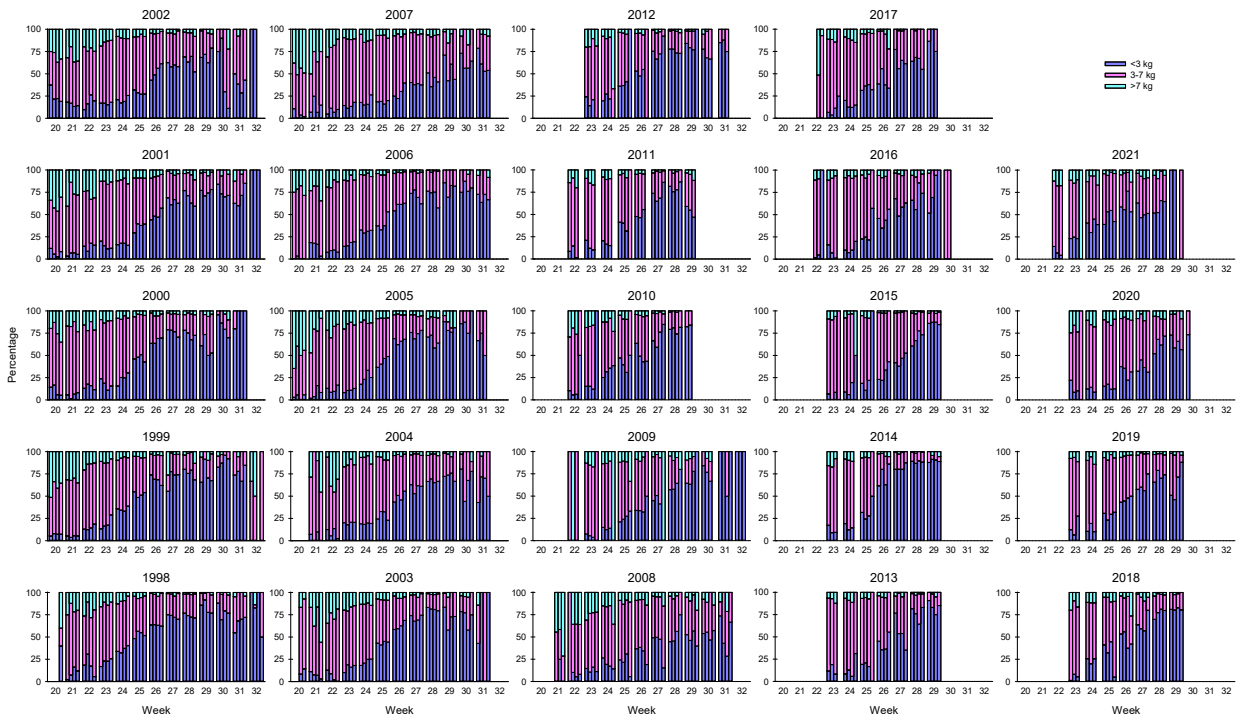


Figure 67. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Sør-Varanger municipality. Source: SSB

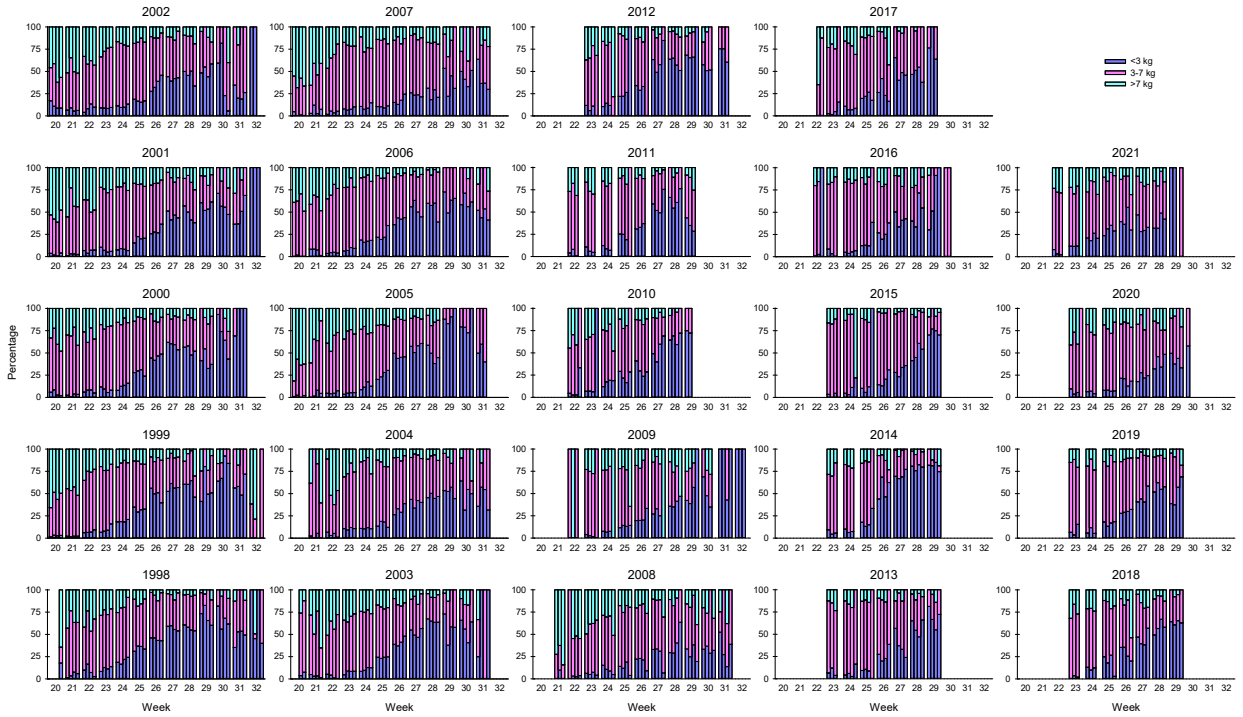


Figure 68. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Sør-Varanger municipality. Source: SSB

14. Daily salmon catch distributions throughout the summer (in numbers and weight) reflect the general timing of salmon migrations in the fisheries in Sør-Varanger, Nesseby and Vadsø municipalities

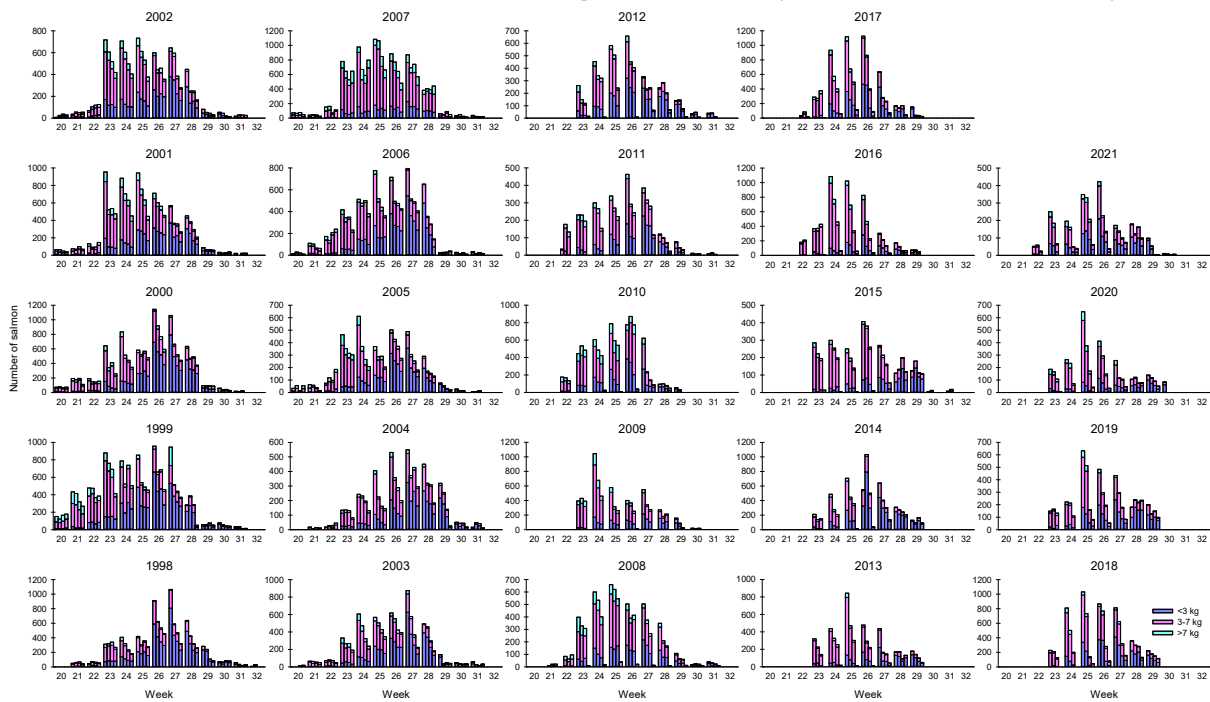


Figure 69. Daily salmon catches (in numbers) in combined bag net and bend net fishery for small, medium and large salmon in Sør-Varanger, Nesseby and Vadsø municipalities. Source: SSB

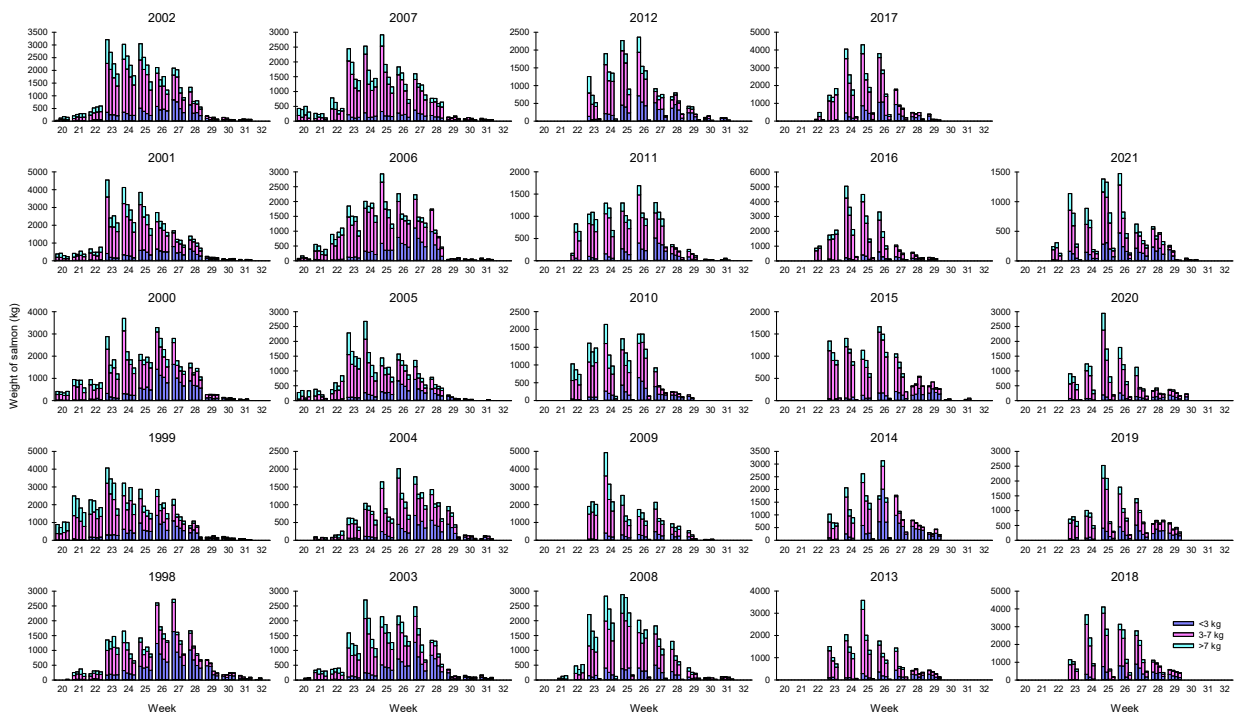


Figure 70. Daily salmon catches (kg) in combined bag net and bend net fishery for small, medium and large salmon in Sør-Varanger, Nesseby and Vadsø municipalities. Source: SSB

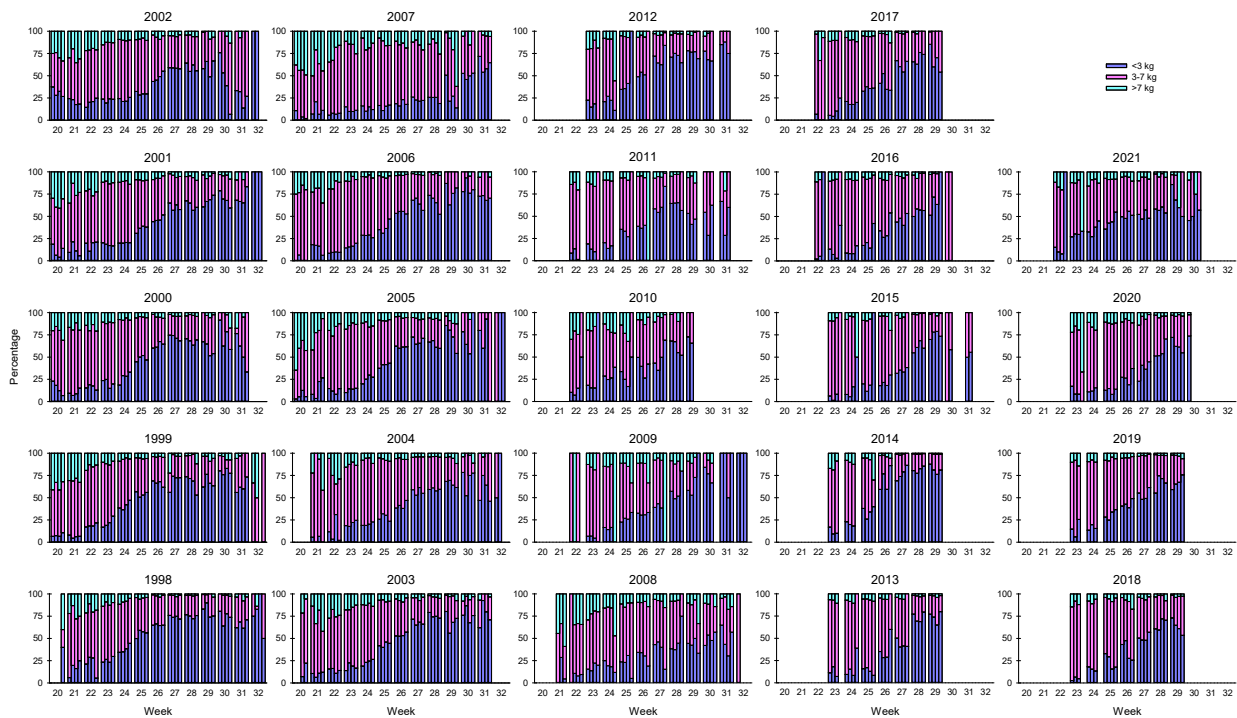


Figure 71. Daily salmon catches (in percentages) from the numbers of fish in combined bag net and bend net fishery for small, medium and large salmon in Sør-Varanger, Nesseby and Vadsø municipalities. Source: SSB

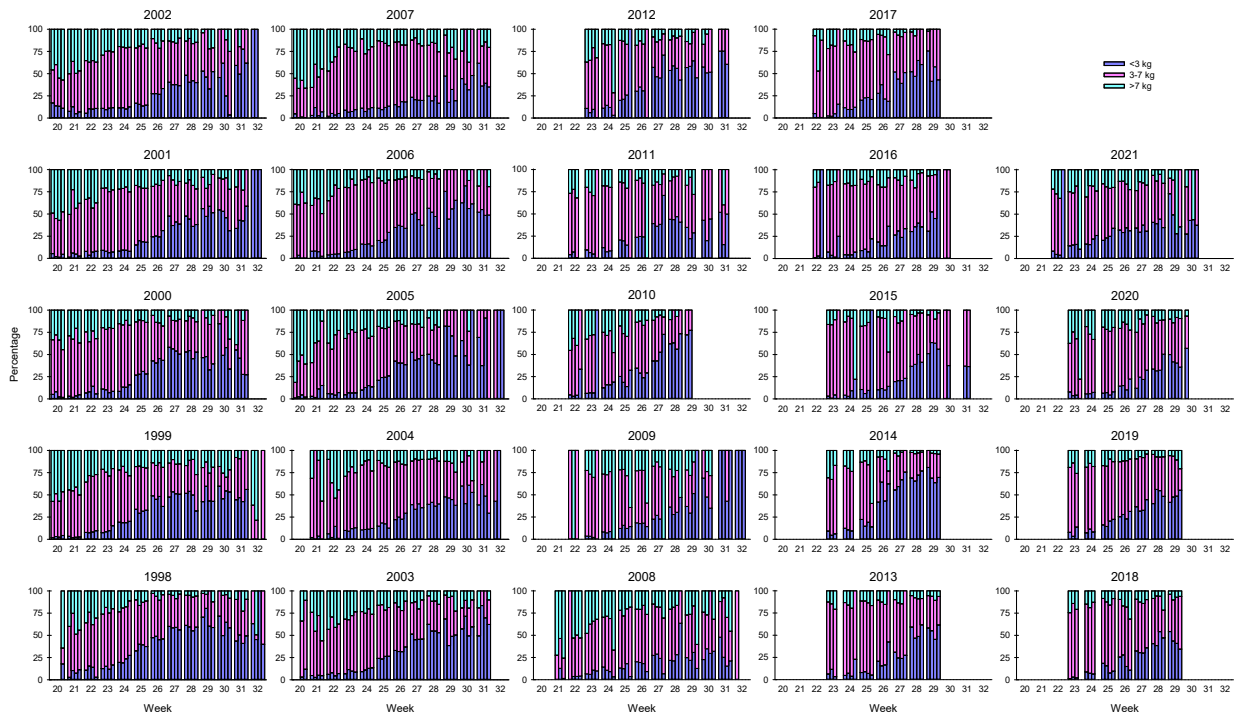


Figure 72. Daily salmon catches (in percentages) from the kg of fish in combined bag net and bend net fishery for small, medium and large salmon in Sør-Varanger, Nesseby and Vadsø municipalities. Source: SSB