

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 XVIII. Released and killed salmon in the catches (=catch and release method) in terms of numbers, weights, timing and proportions within small, medium and large size salmon in 27 Finnmark rivers and in four Troms rivers and totally in all Troms-Finnmark rivers

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<p>Report XVIII. Released and killed salmon in the catches (=catch and release method) in terms of numbers, weights, timing and proportions within small, medium and large size salmon in 27 Finnmark rivers and in four Troms rivers and totally in all Troms-Finnmark rivers</p> <p>Niemelä ^{1,2}, E., Hassinen^{1,2}, E., Kalske³, T.H., Høstmark³, M.S.</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>The practice of releasing salmon in the rod fishery catches back into the rivers in Northern Norway is today more of a rule than an exception. Catch and release practice is used for the entire fishing season or less frequent only for the limited period in the summer. In most of the rivers in Finnmark, fishers have in the recent years followed catch and release practice voluntarily or on a mandatory basis. In those rivers where rod fishing is continuing to target seatrout after salmon fishing is prohibited in August, catch and release practice for salmon is necessary.</p> <p>Every fifth salmon caught in rod fishery in Finnmark/Troms rivers were released; also 15%-20% from salmon caught in the years 2013-2020 were released back into the rivers. The numbers of salmon released was between approx. 5 000 and 8 000, corresponding to the catch in kilos between 21 000 to 34 000 kg in the years 2013-2020. Half of the released salmon in numbers were fish below 3 kilos but in weights, large salmon (larger than 7 kilos) made the majority (50%). Size groups in released salmon stayed almost the same over the years.</p> <p>Catch and release practice is used throughout the entire summer (Fig. 2). All size groups of salmon are objects in catch releases and the proportions of released salmon is increasing towards the end of fishing season. In the week 33 (middle of August) 50% of large salmon (larger than 7 kilos), were released. From medium size salmon (3-7 kilos fish) 50% were caught in the week 34. Usually, salmon is close to its spawning site already in early August and it is easy to catch there. Therefore, their catchability is better than early in the summer.</p> <p>The numbers of released salmon have large annual variations in the rivers, depending on the salmon stock sizes, catch limits and the length of allowed salmon fishing period. It looks like catch and release practice has become more popular management method along the years.</p> <p>In general, the numbers and weights of released salmon have been quite high compared to the killed salmon in terms of numbers and weights in some important rivers in Finnmark. Weight of released salmon has been in the River Neiden 800 kg (large salmon contributed 50 % from weight) and numbers 170 fish; in the River Vestre Jakobselv weight was 6 000 kg, in the River Skallelv 350 kg, in the River Komagelvv 1300 kg, in the River Syltefjordelvv 1200 kg, in the River Kongsfjordelvv 2500 kg, in the River Lakselvv 5000 kg and in the River Altaelvv 7000 kg. In the River Altaelvv large (over 7 kg salmon) made 90% in released salmon weight and the number of released large salmon exceeded 700 fish making 60%-70% from all released fish.</p>	

Key words:

Catch and release, Atlantic salmon, *Salmo salar*, rod fishing, Finnmark, Troms

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Eero Niemelä

Content

1. Introduction.....	6
2. Released and killed salmon in Troms-Finnmark rivers.....	7
3. Numbers and weights of salmon released annually in rod fishing in the River Grense Jakobselv	9
4. Numbers and weights of salmon released annually in rod fishing in the River Karpelv	11
5. Numbers and weights of salmon released annually in rod fishing in the River Sandneselv (Kirkenes)..	13
6. Numbers and weights of salmon released annually in rod fishing in the River Munkelv	15
7. Numbers and weights of salmon released annually in rod fishing in the River Neidenelv	17
8. Numbers and weights of salmon released annually in rod fishing in the River Klokkerelv	19
9. Numbers and weights of salmon released annually in rod fishing in the River Vesterelv	21
10. Numbers and weights of salmon released annually in rod fishing in the River Bergebyelv	23
11. Numbers and weights of salmon released annually in rod fishing in the River Vestre Jakobselv	25
12. Numbers and weights of salmon released annually in rod fishing in the River Skallelv	27
13. Numbers and weights of salmon released annually in rod fishing in the River Komagelv	29
14. Numbers and weights of salmon released annually in rod fishing in the River Sandfjordelv (Båtsfjord)	31
15. Numbers and weights of salmon released annually in rod fishing in the River Syltefjordelv.....	33
16. Numbers and weights of salmon released annually in rod fishing in the River Kongsfjordelv	35
17. Numbers and weights of salmon released annually in rod fishing in the River Stordalselv (Berlevåg)	37
18. Numbers and weights of salmon released annually in rod fishing in the River Tana watershed (Norway).....	39
19. Numbers and weights of salmon released annually in rod fishing in the River Langfjordelv	41
20. Numbers and weights of salmon released annually in rod fishing in the River Risfjordelv	43
21. Numbers and weights of salmon released annually in rod fishing in the River Sandfjordelv (Gamvik)	45
22. Numbers and weights of salmon released annually in rod fishing in the River Storelv (Lebesby)	47
23. Numbers and weights of salmon released annually in rod fishing in the River Veidneselv.....	49
24. Numbers and weights of salmon released annually in rod fishing in the River Lille Porsangerelv.....	51
25. Numbers and weights of salmon released annually in rod fishing in the River Børselv	53
26. Numbers and weights of salmon released annually in rod fishing in the River Lakselv.....	55
27. Numbers and weights of salmon released annually in rod fishing in the River Stabburselv	57
28. Numbers and weights of salmon released annually in rod fishing in the River Repparfjordelv	59
29. Numbers and weights of salmon released annually in rod fishing in the River Altaelv	61
30. Numbers and weights of salmon released annually in rod fishing in the River Reisaelv	63
31. Numbers and weights of salmon released annually in rod fishing in the River Nordkjoseelv	65
32. Numbers and weights of salmon released annually in rod fishing in the River Målselv.....	66

33.	Numbers and weights of salmon released annually in rod fishing in the River Lysbotnelv.....	68
34.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Grense Jakobselv and Karpelv.....	70
35.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Sandneselv and Munkelv.....	73
36.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Neidenelv (Norway) and Klokkerelv.....	75
37.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Vesterelv and Bergebyelv.....	78
38.	Numbers, proportions, and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Vestre Jakobselv and Skallelv.....	81
39.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Komagelv and Sandfjordelv (Båtsfjord).....	84
40.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Syltefjordelv (Ordo) and Kongsfjordelv.....	87
41.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Tanaelv watershed (Norway) and Langfjordelv (Laggo).....	91
42.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Risfjordelv and Sandfjordelv (Gamvik).....	94
43.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Storelv (Lebesby) and Veidneselv.....	96
44.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Lille Porsangerelv and Børselv.....	98
45.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Lakselv and Stabburselv.....	101
46.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Repparfjordelv and in Altaelv.....	105
47.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Reissaelv and Nordkjoselv.....	109
48.	Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Målselv and Lysbotnelva.....	112

1. Introduction

In the CoASal project we present the annual salmon catches, separated in killed and released salmon, from 27 salmon rivers in Northern Norway. The catch and release method has been used in northern Norwegian rivers for appr. 15-25 years. This method has been both voluntary and mandatory. The purpose has been to protect large female and male spawners. In some rivers, the catch and release method has included orders to release salmon larger than a certain length, to release all female salmon and allow salmon rod fishing after a certain date only when wild salmon are released. In Kola Peninsula, Russia, salmon flyfishing for tourists was initiated in the early 1990's and the only method allowed was catch and release fishing.

2. Released and killed salmon in Troms-Finnmark rivers

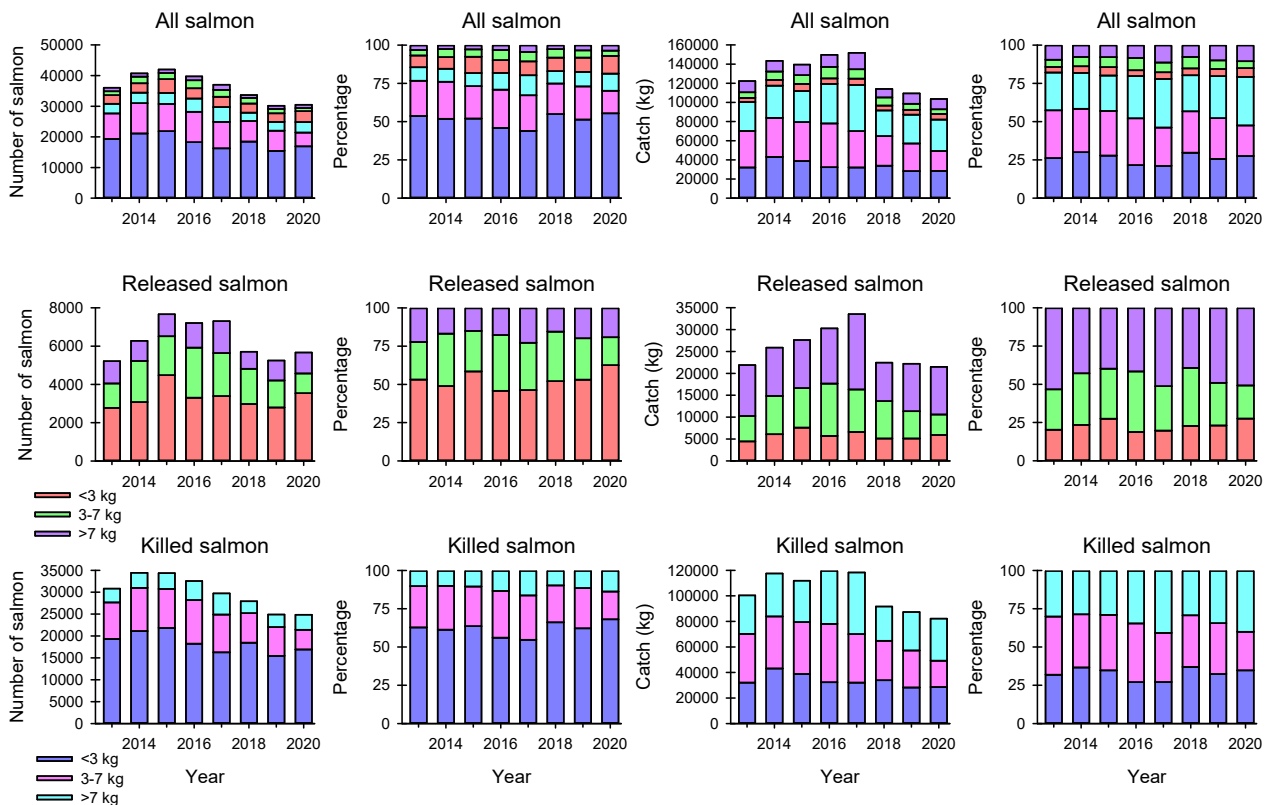


Figure 1. Numbers, weights and proportions of killed and released salmon in rod fishing catches in Troms-Finnmark county. Source: SSB

Every fifth salmon caught in rod fishery in Finnmark/Troms rivers were released; also 15%-20% from salmon caught in the years 2013-2020 were released back to the rivers (Fig.1). The numbers of salmon released was between appr. 5 000 and 8 000, corresponding to the catch in kilos between 21 000 to 34 000 kg in the years 2013-2020. Half from the released salmon in numbers were fish below 3 kilos but in weights large salmon, larger than 7 kilos, made the majority (50%). Size groups in released salmon stayed almost the same over the years.

Catch and release practice is used throughout the entire summer (Fig. 2). All size groups of salmon are objects in catch releases and the proportions of released salmon is increasing towards the end of fishing season. In the week 33 (middle of August), 50% of large salmon (larger than 7 kilos), were released. From medium size salmon (3-7 kilos fish), 50% were caught in the week 34. Salmon can be close to its spawning site already in early August, it is easy to catch there and therefore their catchability is better than early in the summer.

Figures 3-63 are showing weekly and annual size distributions for small, medium and large size released salmon in numbers, weights and proportions, in 27 individual rivers. The numbers of released salmon have large annual variations in the rivers depending on the salmon stock sizes, catch limits and the length of allowed salmon fishing period. It looks like catch and release practice has become a more popular management method along the years.

In general, the numbers and weights of released salmon have been quite high compared to the killed salmon, in terms of numbers and weights in some important rivers in Finnmark. Weight of released salmon in the River Neiden has been at 800 kg (large salmon contributed 50 % from weight) and numbers 170 fish; in the River Vestre Jakobselv the weight was 6 000 kg, in the River Skallelv 350 kg, in the River Komagelv 1300 kg, in the River Syltefjordelv 1200 kg, in the River Kongsfjordelv 2500 kg, in the River Lakselv 5000 kg and

in the River Altaelv 7000 kg. In the River Altaelv large salmon (over 7 kg) made up 90% in released salmon weight and the number of released large salmon exceeded 700 fish, making 60%-70% from all released fish.

Figures 64-132 are giving details about the annual numbers and weights and proportions of released salmon compared to killed salmon in three size groups of salmon. Figures are showing annual size distributions between killed and released salmon, cumulative catches are showing different timings between killed salmon and released salmon captures.

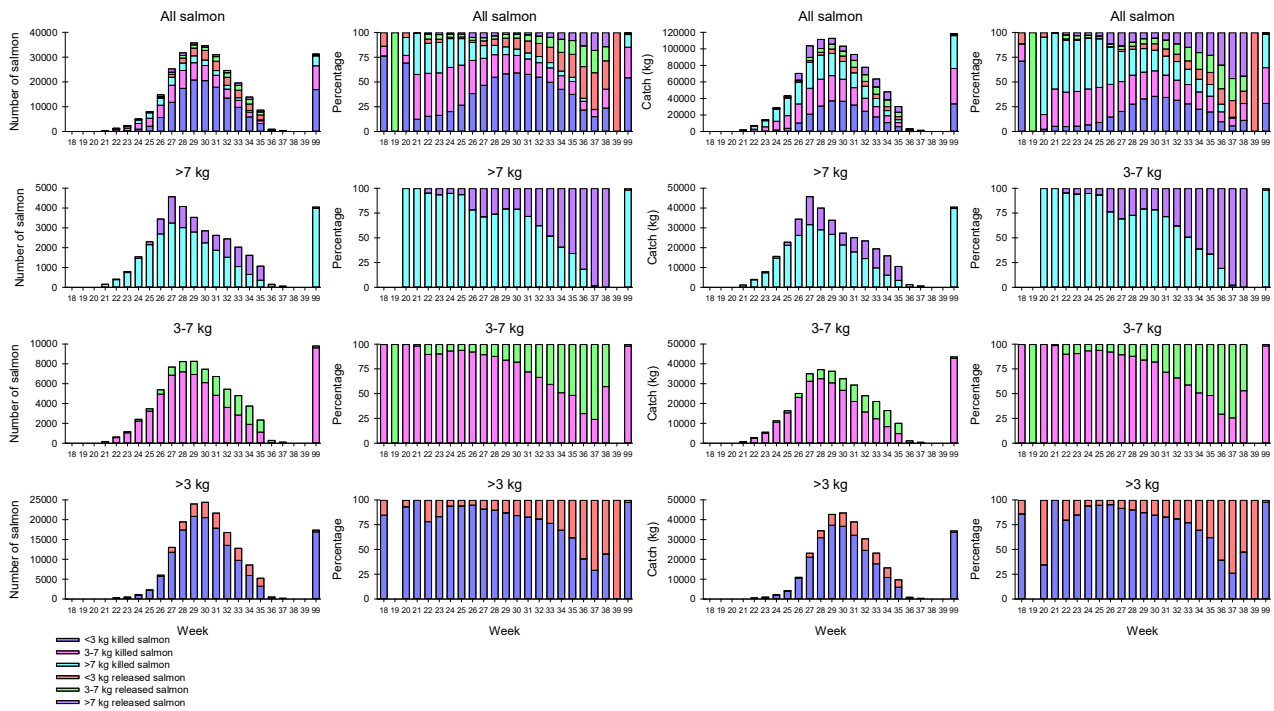


Figure 2. Weekly catches of killed and released salmon in Troms-Finmark salmon rivers indicating the timing of salmon fishery data from the years 2013-2020 combined. Source: SSB

3. Numbers and weights of salmon released annually in rod fishing in the River Grense Jakobselv

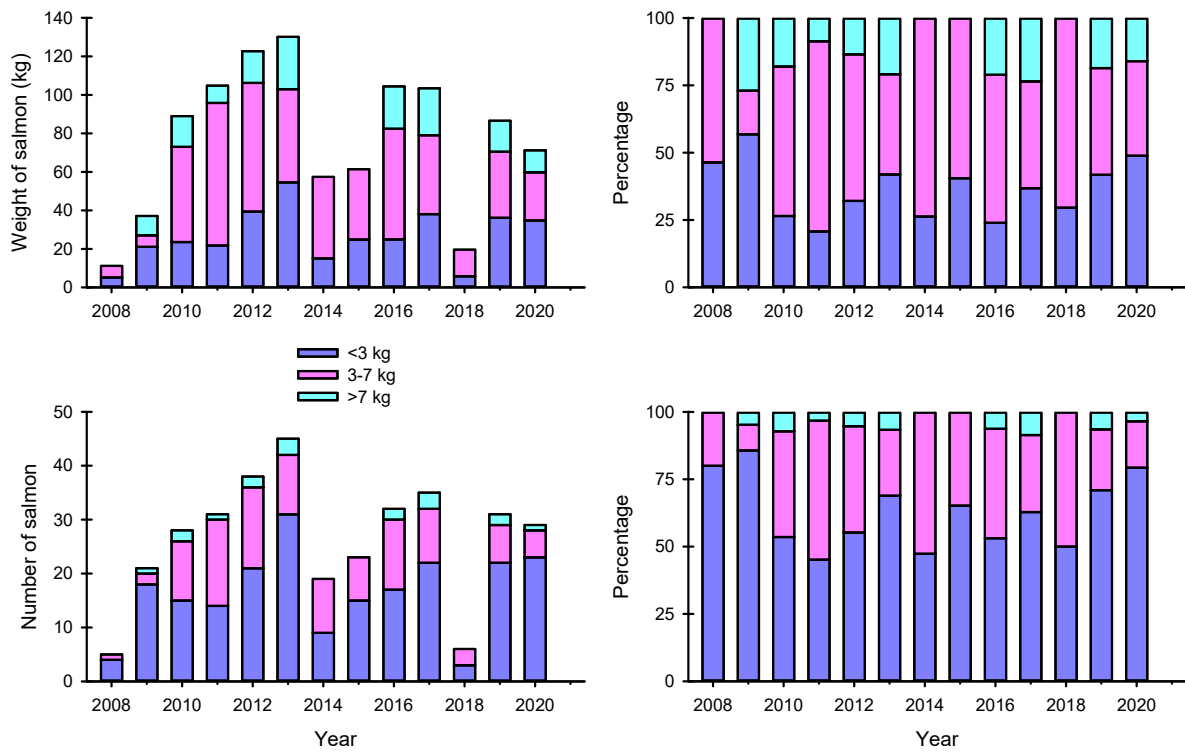


Figure 3. Annual numbers, weights and proportions of size groups in released salmon in the River Grense Jakobselv. Source: SSB

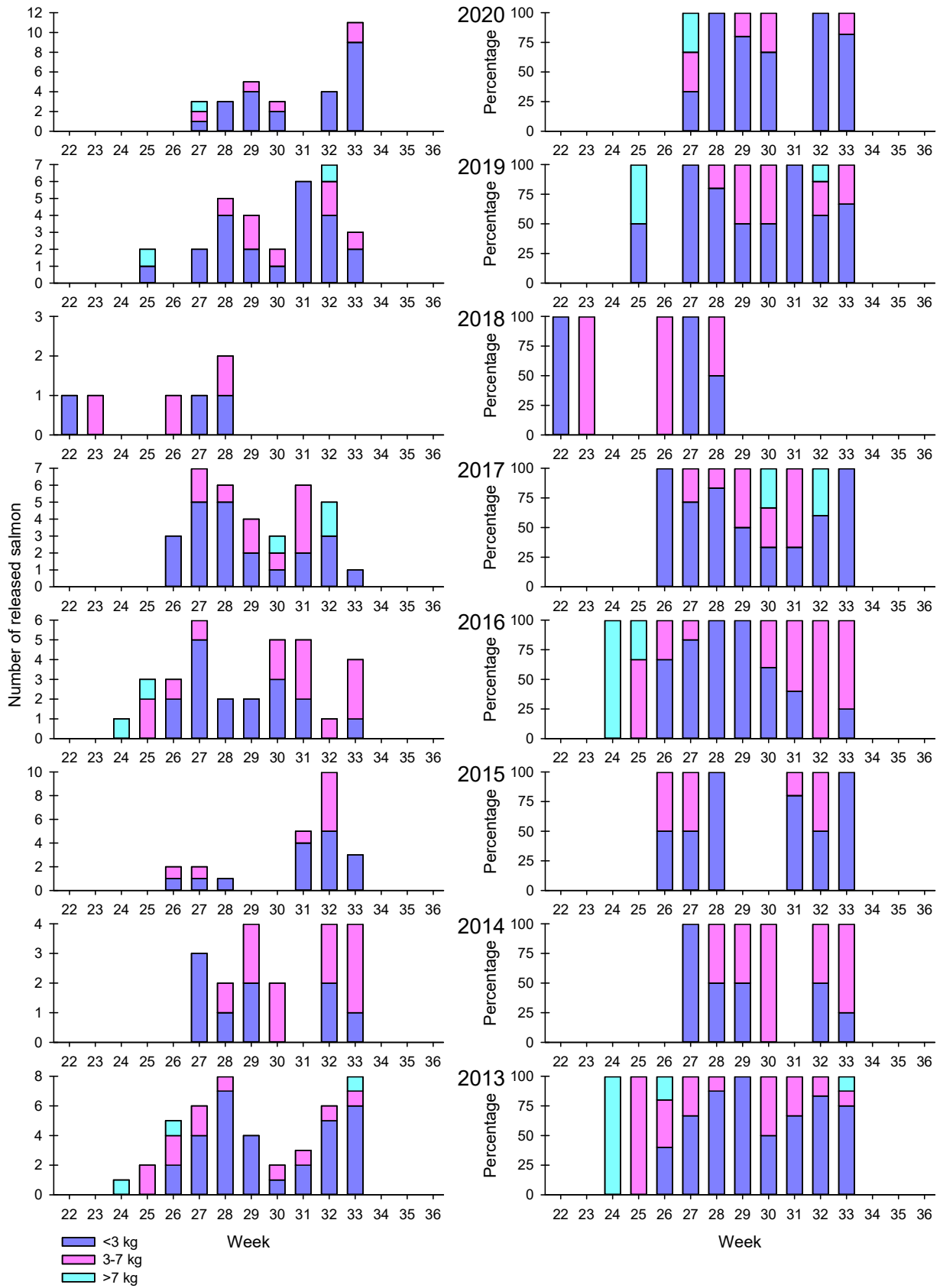


Figure 4. Weekly numbers and proportions of size groups in released salmon in the River Gense Jakobselv. Source: SSB

4. Numbers and weights of salmon released annually in rod fishing in the River Karpelv

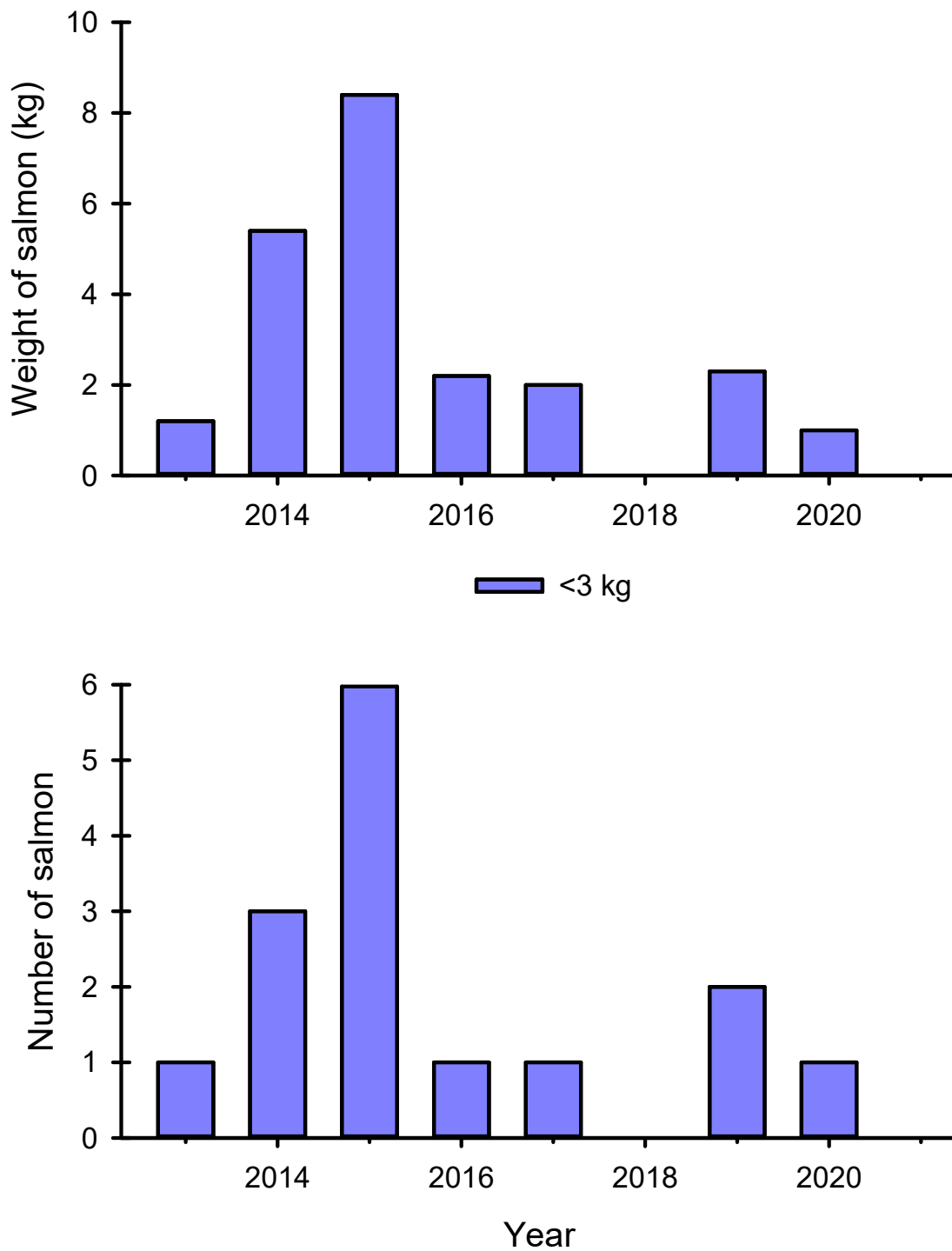


Figure 5. Annual numbers and weights of released salmon smaller than 3 kilos in the River Karpelv. Source: SSB

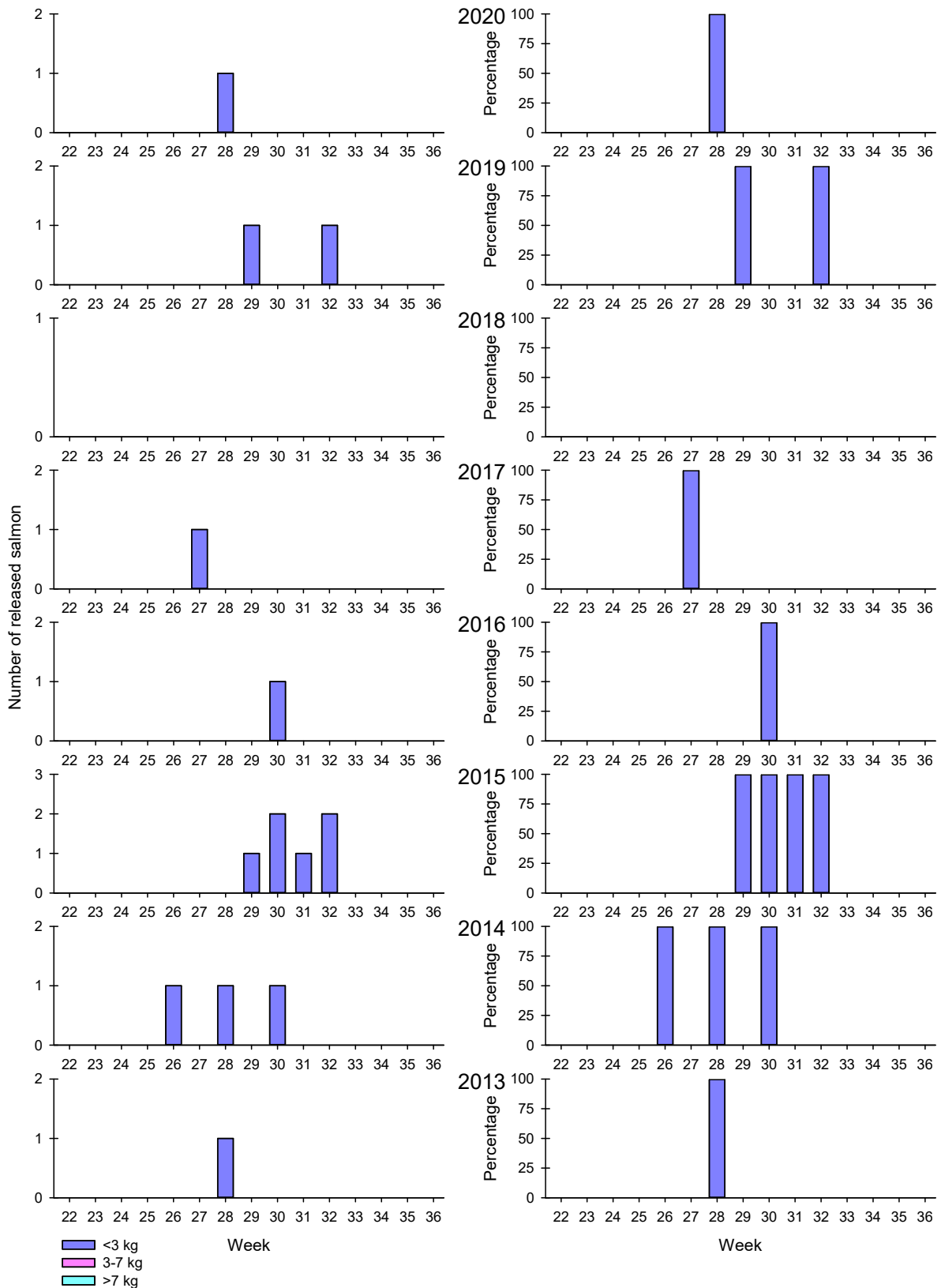


Figure 6. Weekly numbers and proportions of size groups in released salmon in the River Karpelv. Source: SSB

5. Numbers and weights of salmon released annually in rod fishing in the River Sandneselv (Kirkenes)

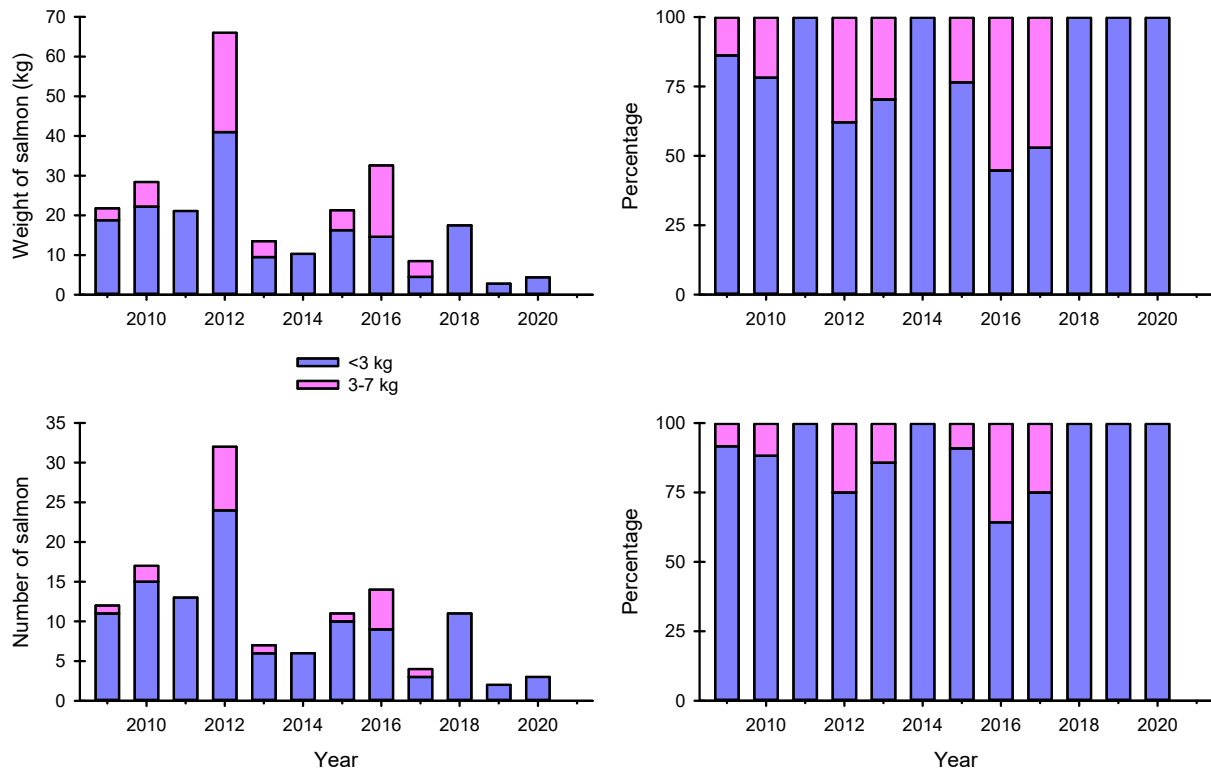


Figure 7. Annual numbers, weights and proportions of size groups in released salmon in the River Sandneselv (Kirkenes). Source: SSB

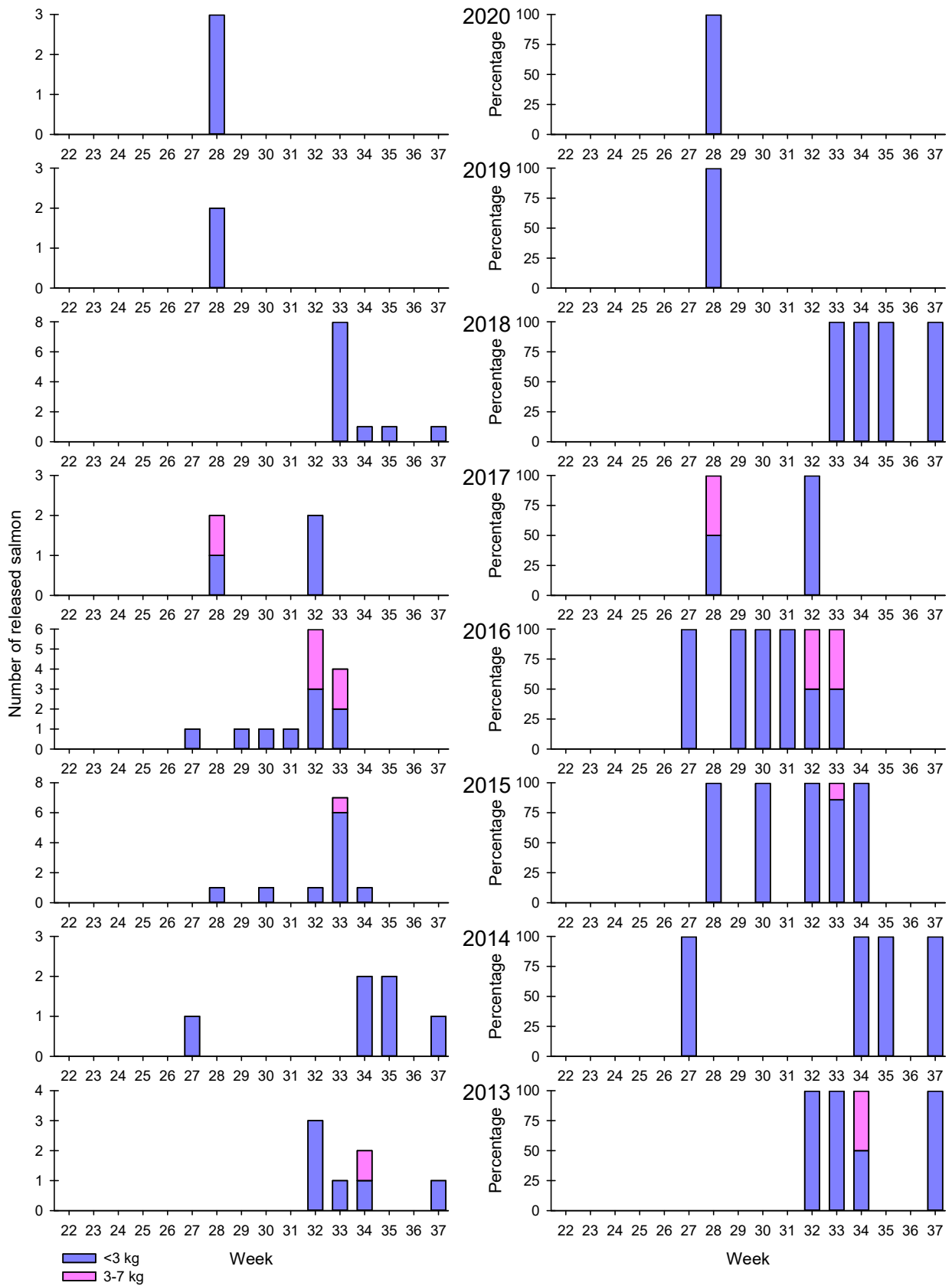


Figure 8. Weekly numbers and proportions of size groups in released salmon in the River Sandneselv (Kirkenes). Source: SSB

6. Numbers and weights of salmon released annually in rod fishing in the River Munkelv

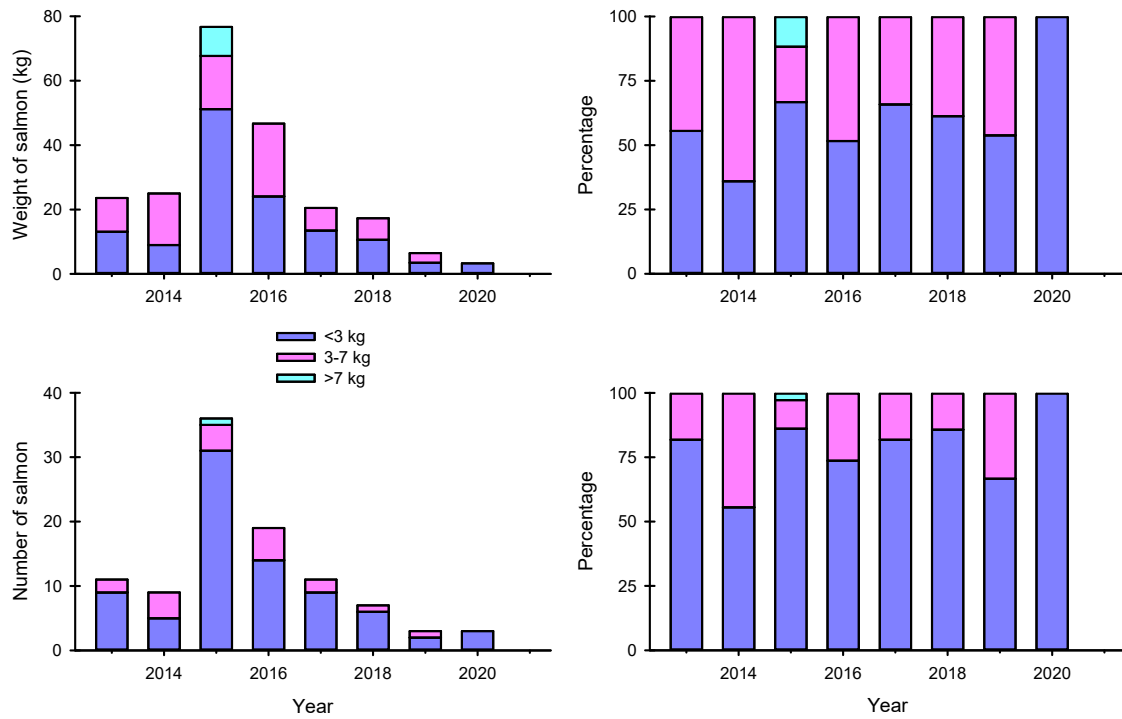


Figure 9. Annual numbers, weights and proportions of size groups in released salmon in the River Munkelv. Source: SSB

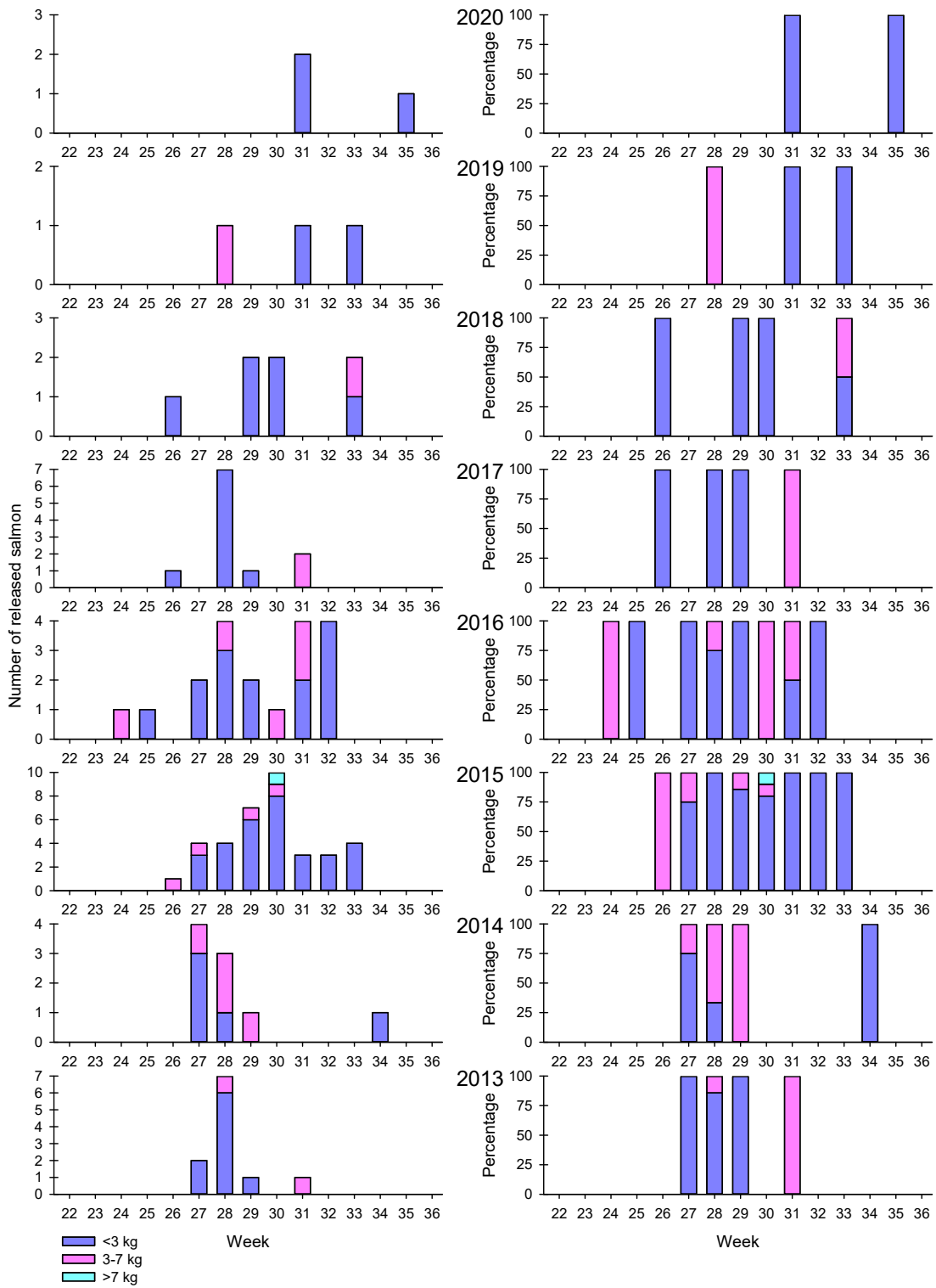


Figure 10. Weekly numbers and proportions of size groups in released salmon in the River Munkeløv. Source: SSB

7. Numbers and weights of salmon released annually in rod fishing in the River Neidenelv

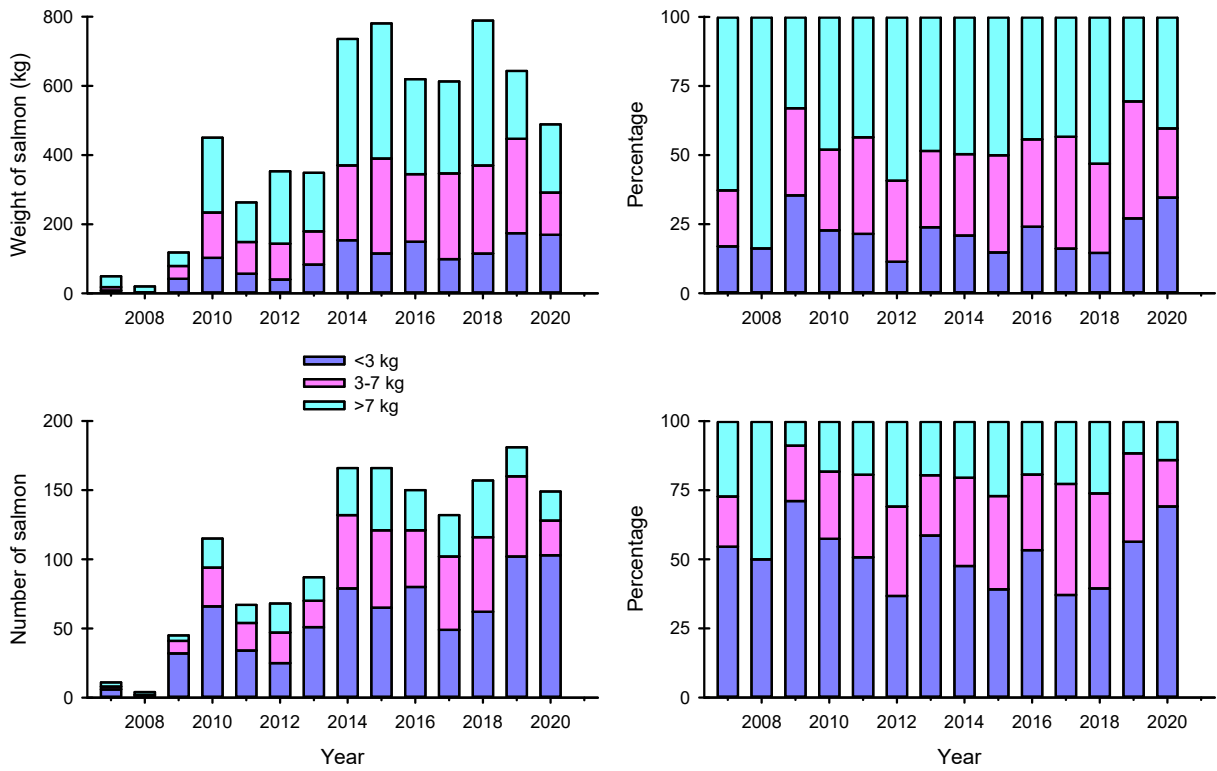


Figure 11. Annual numbers, weights and proportions of size groups in released salmon in the River Neidenelv (Norway) in the rod fishery. Source: SSB

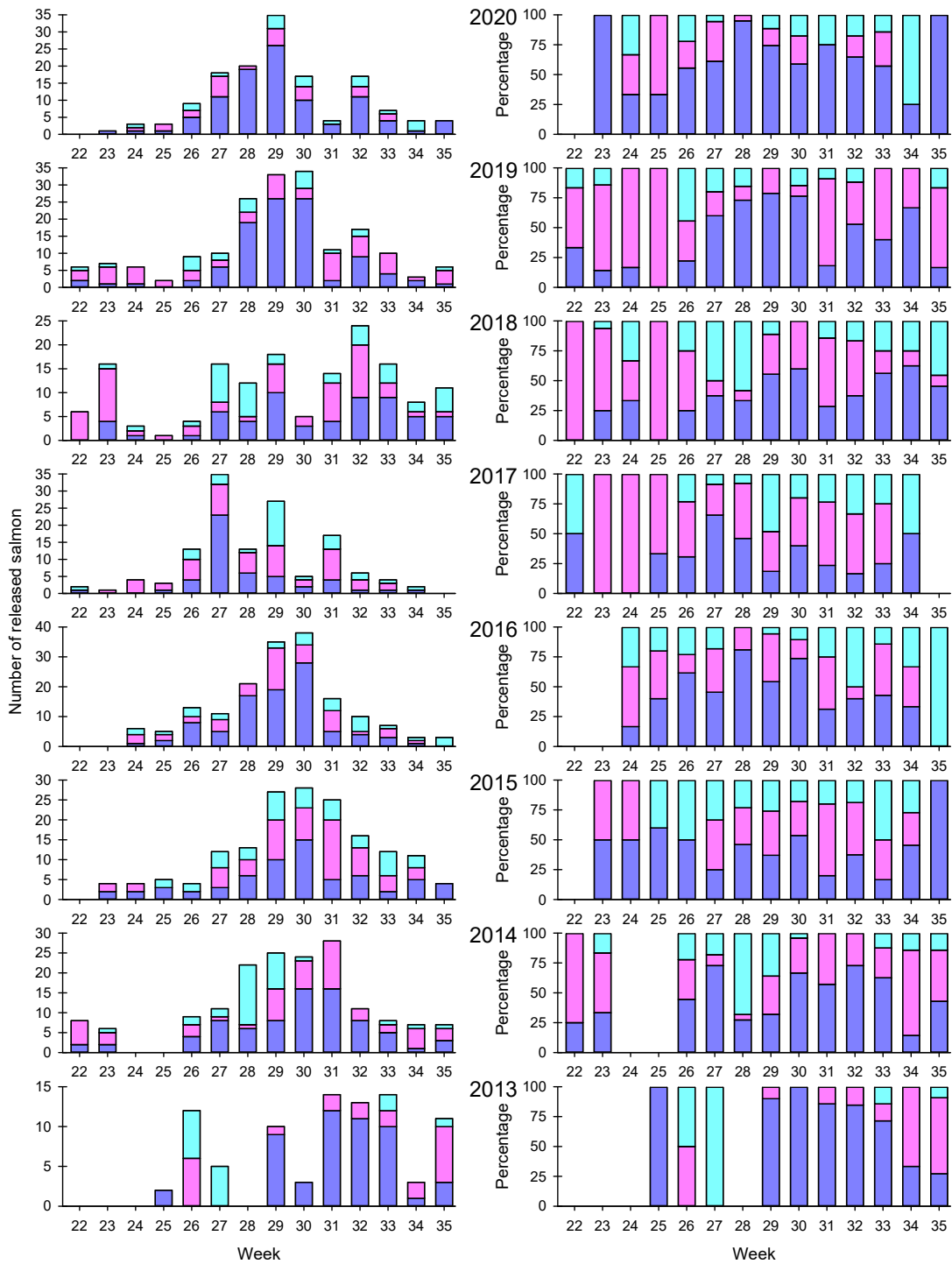


Figure 12. Weekly numbers and proportions of size groups in released salmon in the River Neidenelv. Source: SSB

8. Numbers and weights of salmon released annually in rod fishing in the River Klokkerelv

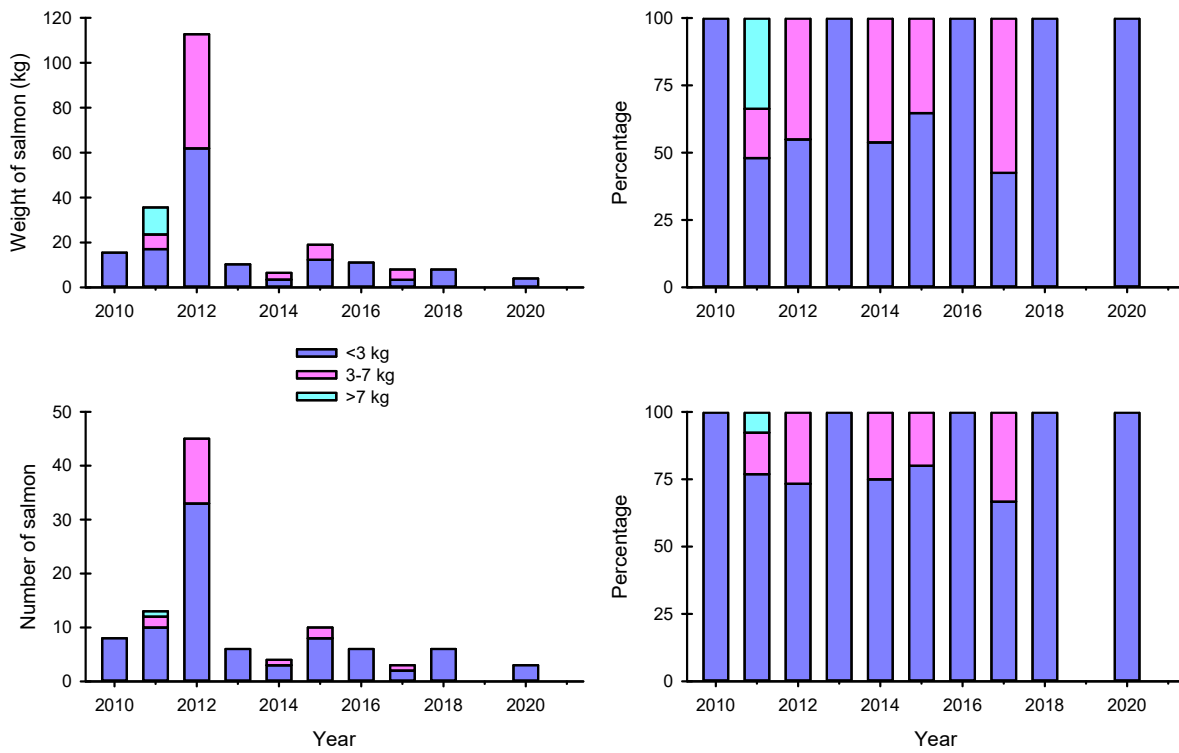


Figure 13. Annual numbers, weights and proportions of size groups in released salmon in the River Klokkerelv. Source: SSB

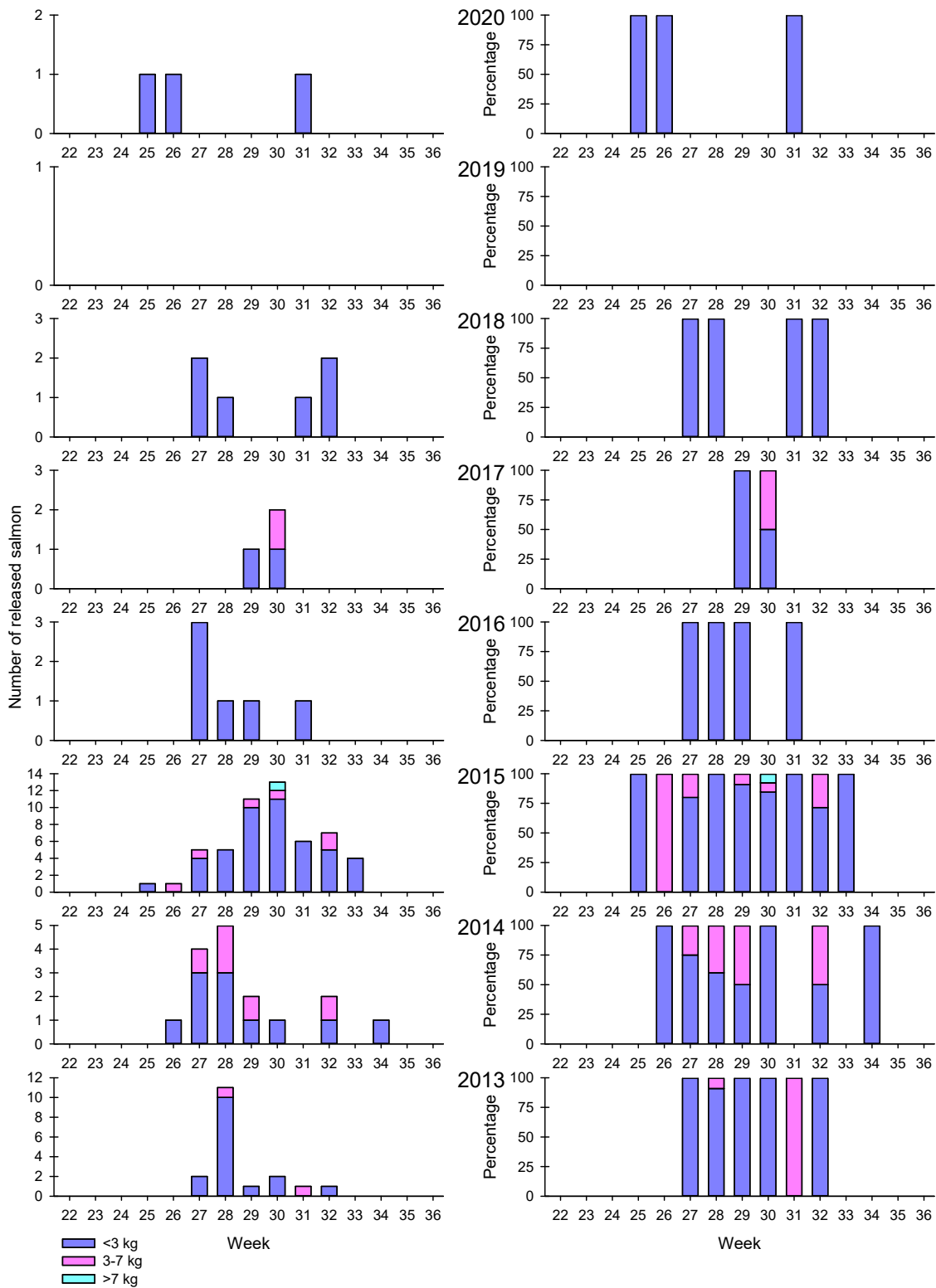


Figure 14. Weekly numbers and proportions of size groups in released salmon in the River Klokkerelv. Source: SSB

9. Numbers and weights of salmon released annually in rod fishing in the River Vesterelv

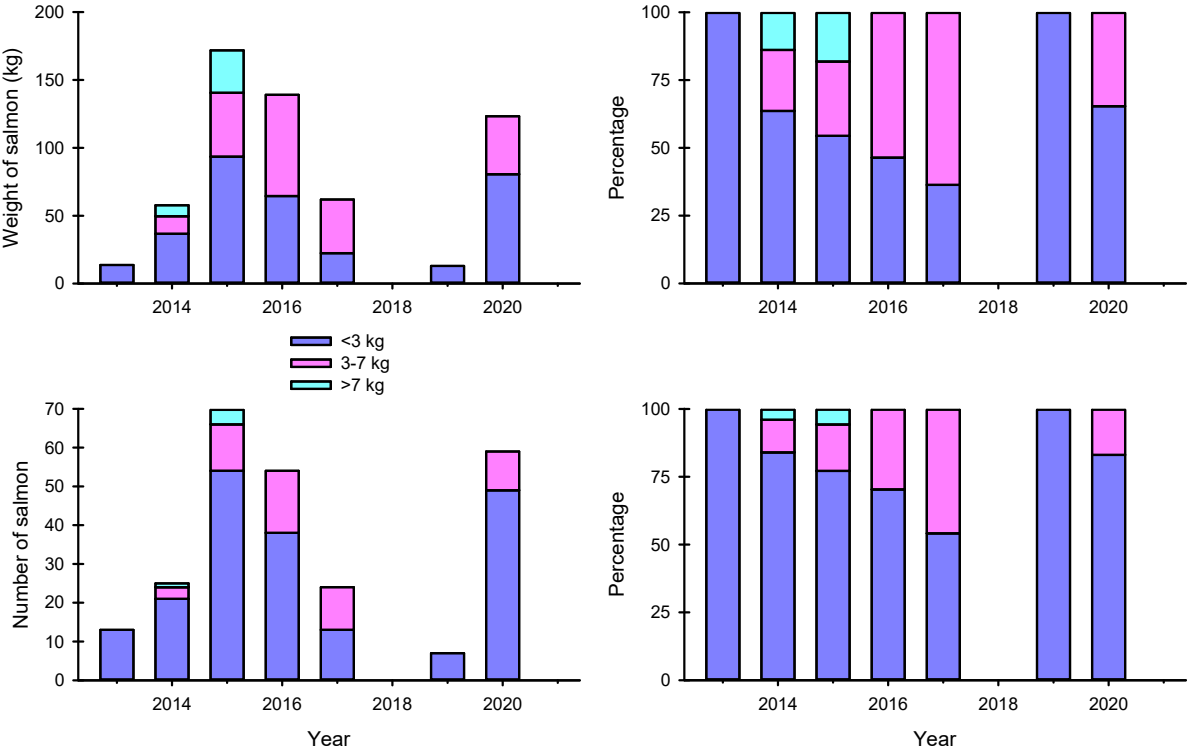


Figure 15. Annual numbers, weights and proportions of size groups in released salmon in the River Vesterelv. Source: SSB

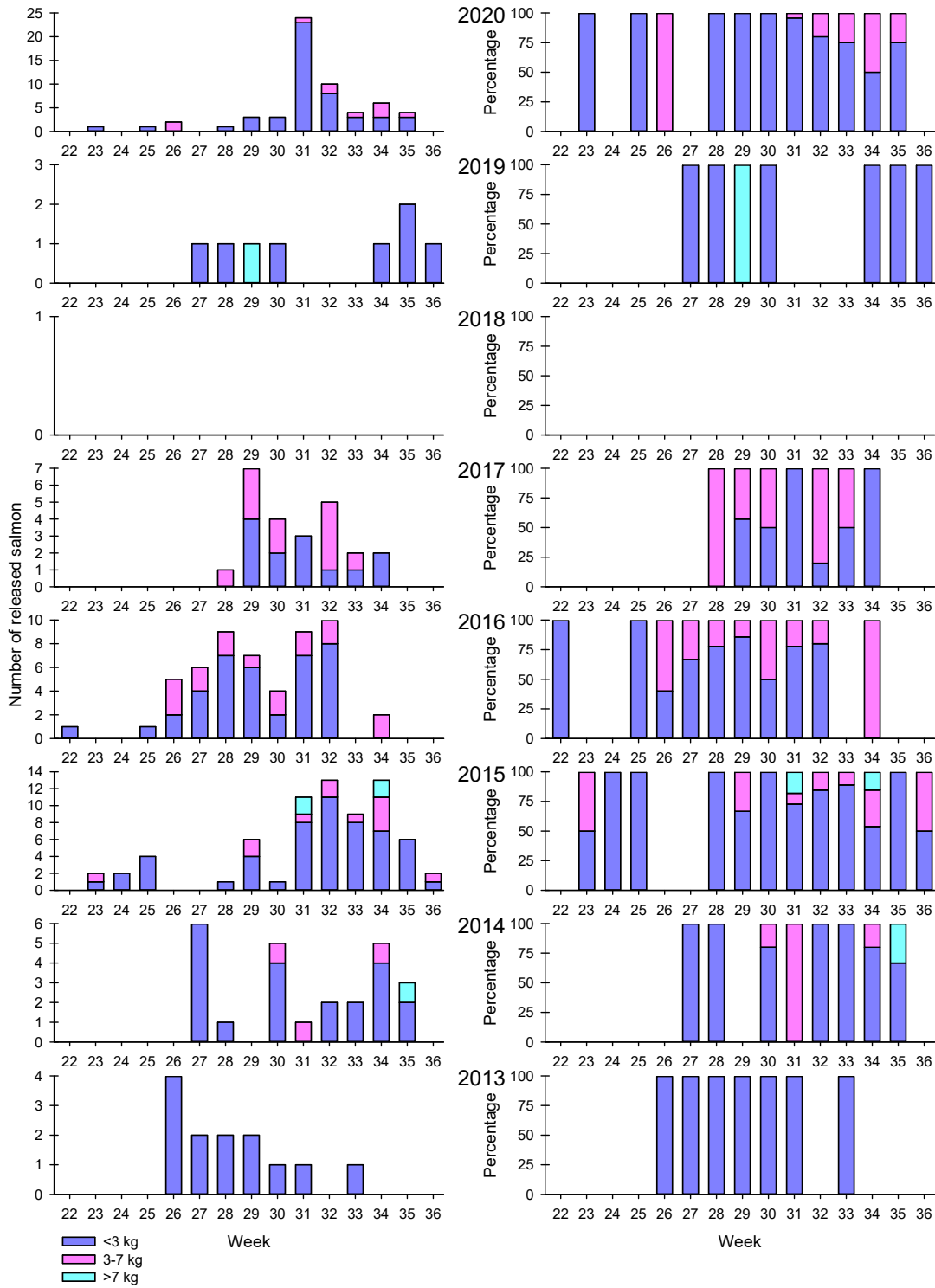


Figure 16. Weekly numbers and proportions of size groups in released salmon in the River Vesterelv. Source: SSB

10. Numbers and weights of salmon released annually in rod fishing in the River Bergebyelv

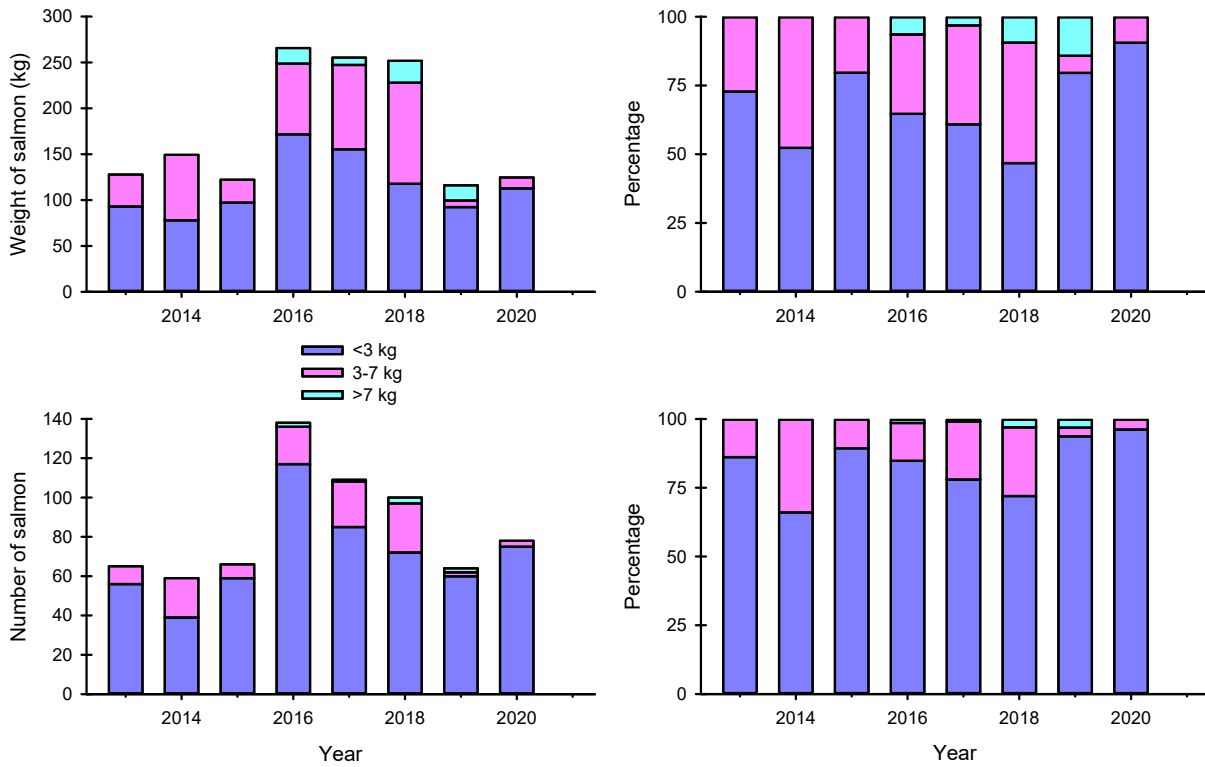


Figure 17. Annual numbers, weights and proportions of size groups in released salmon in the River Bergebyelv. Source: SSB

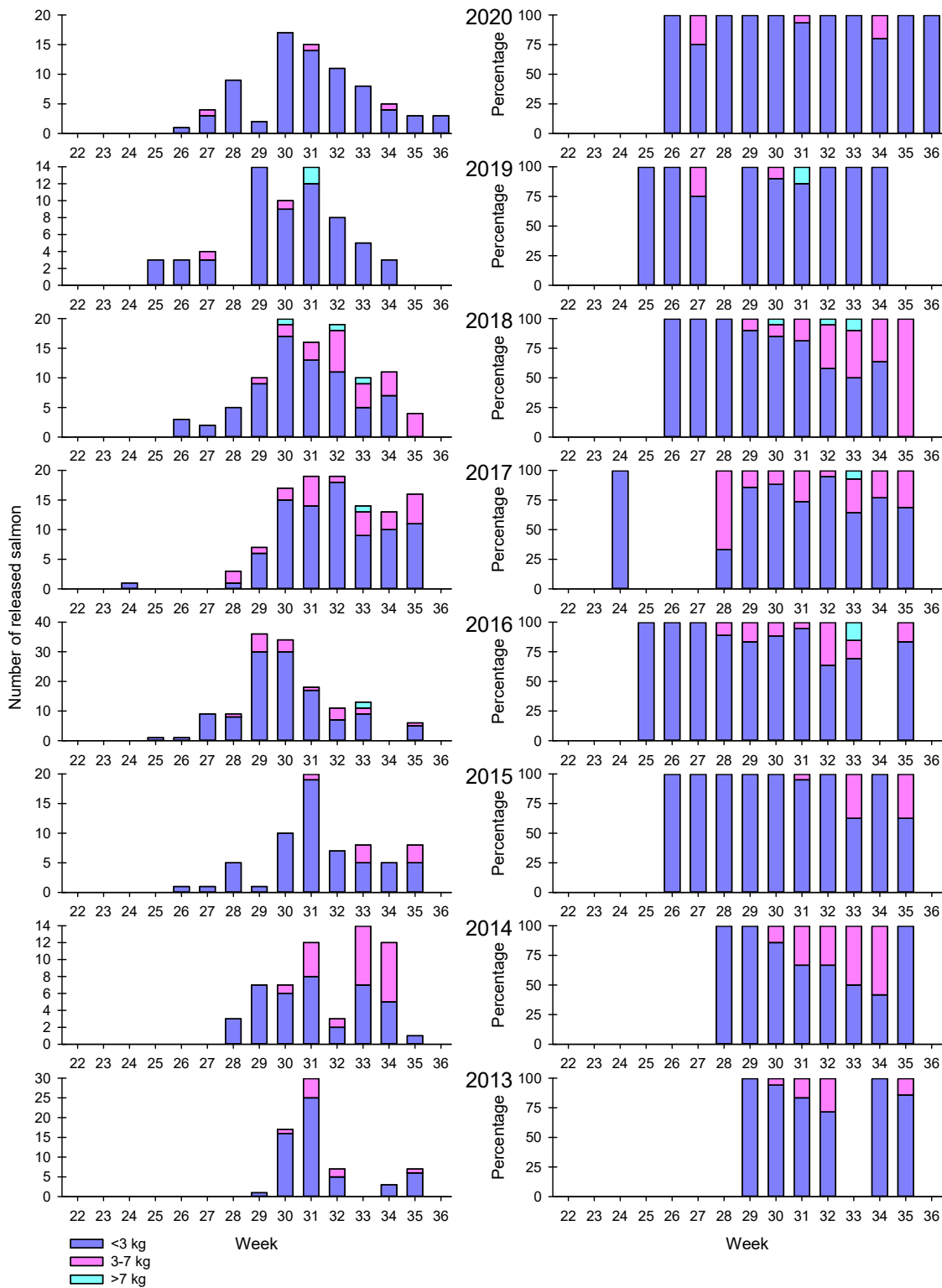


Figure 18. Weekly numbers and proportions of size groups in released salmon in the River Bergebyelv. Source: SSB

11. Numbers and weights of salmon released annually in rod fishing in the River Vestre Jakobselv

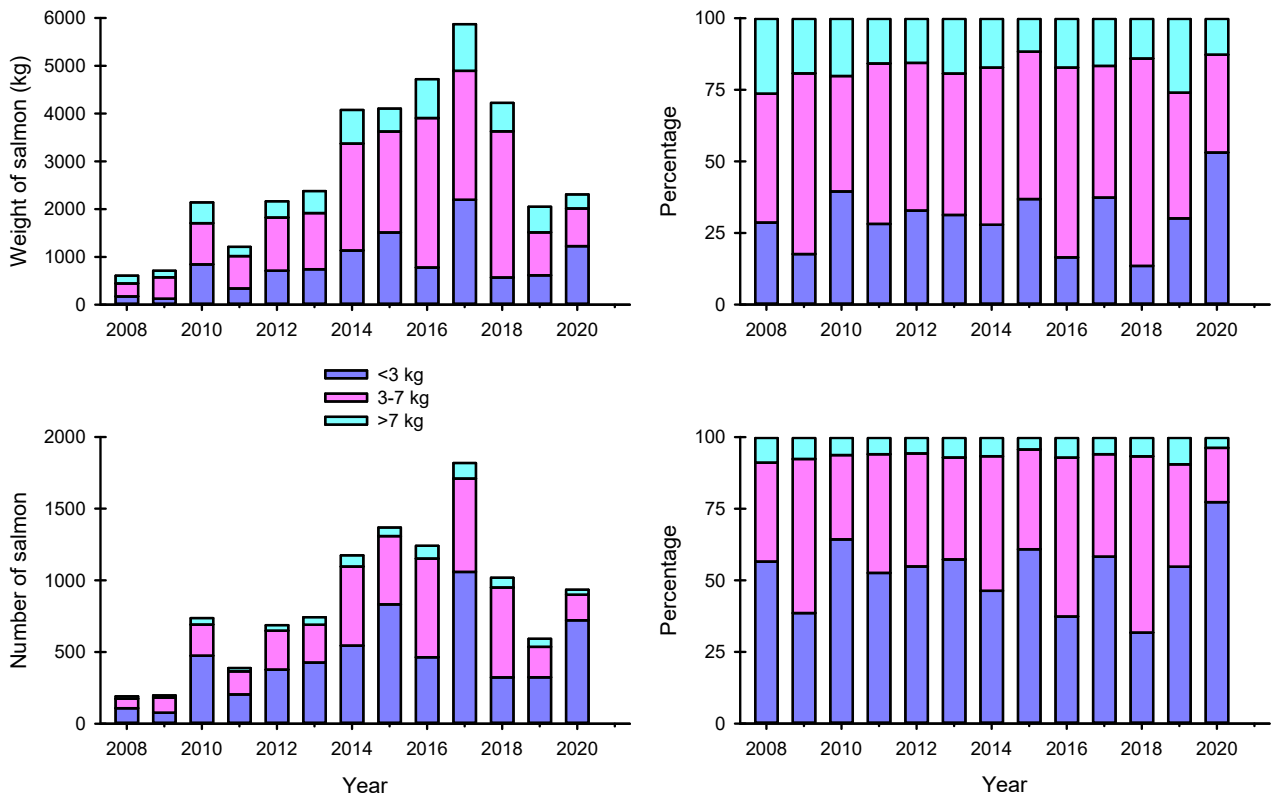


Figure 19 . Annual numbers, weights and proportions of size groups in released salmon in the River Vestre Jakobselv. Source: SSB

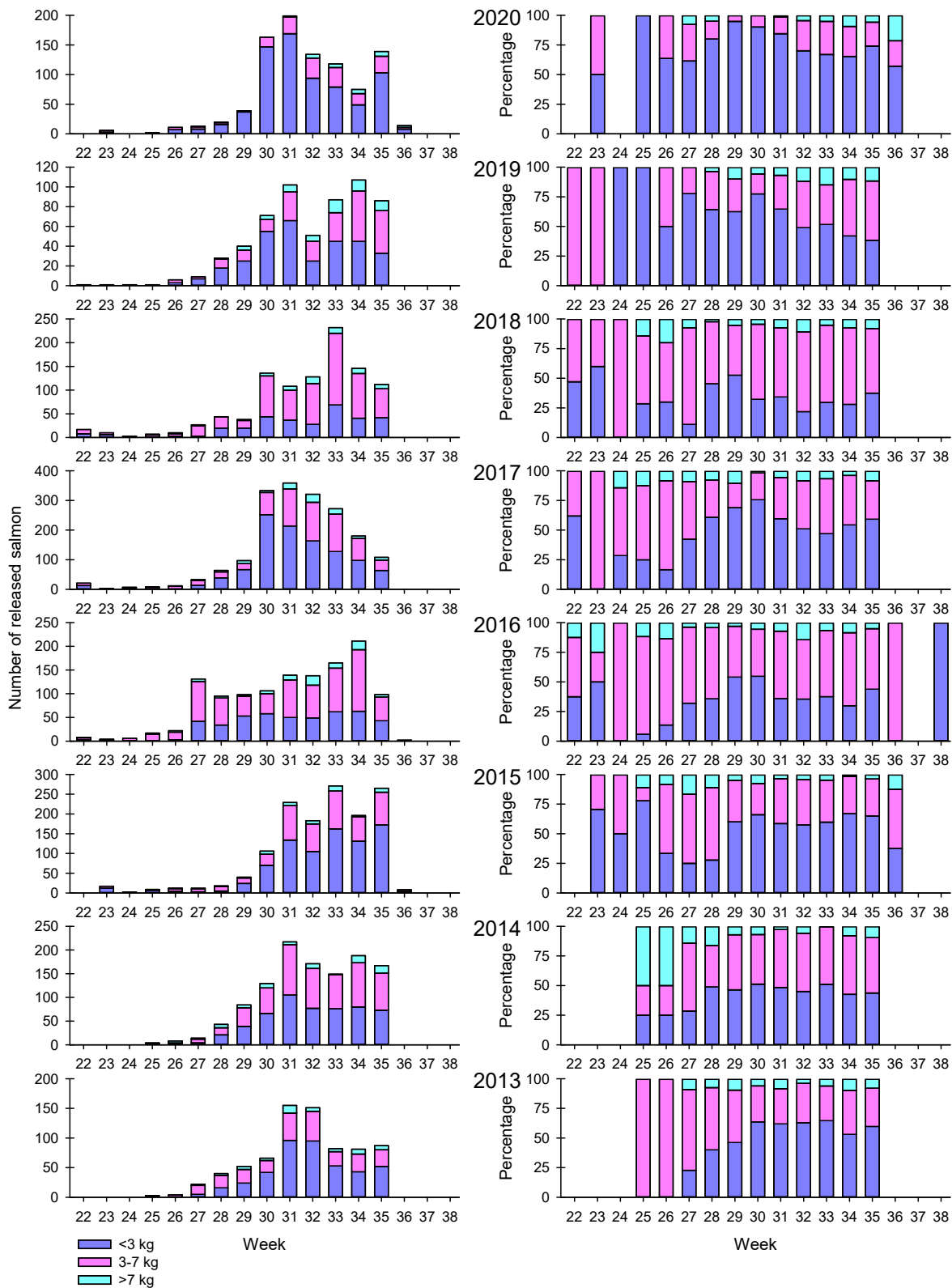


Figure 20. Weekly numbers and proportions of size groups in released salmon in the River Vestre Jakobselv. Source: SSB

12. Numbers and weights of salmon released annually in rod fishing in the River Skallelv

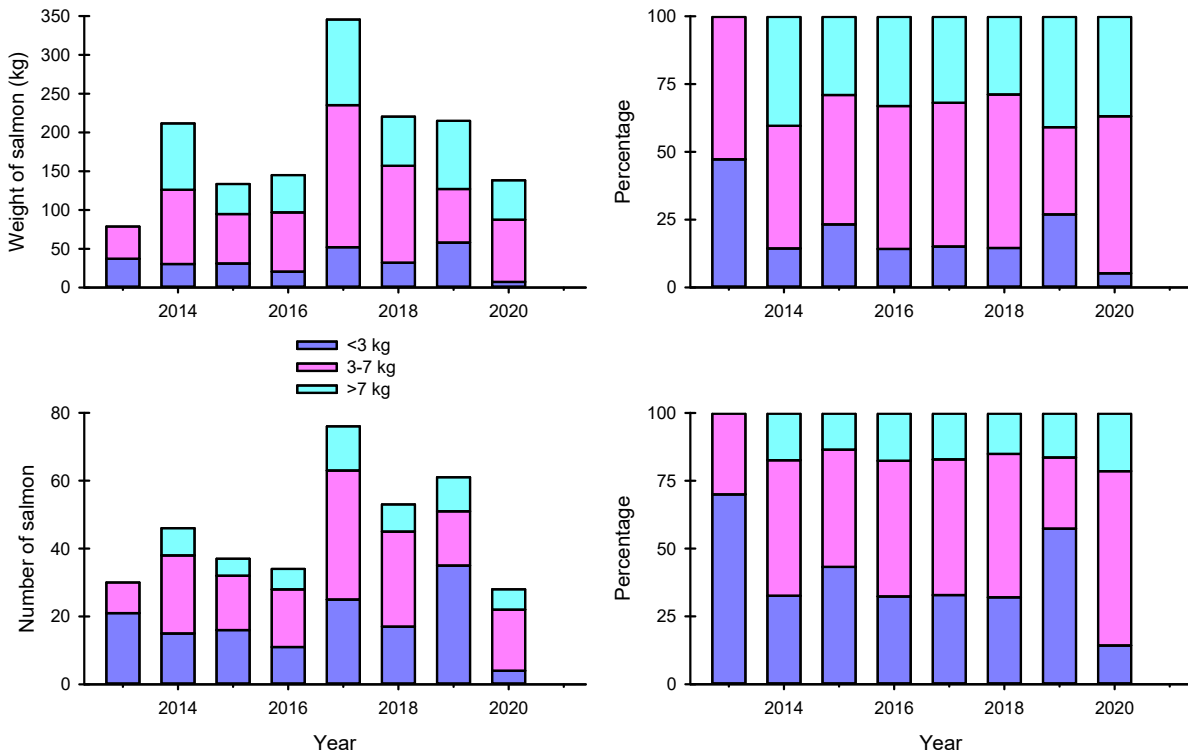


Figure 21. Annual numbers, weights and proportions of size groups in released salmon in the River Skallelv. Source: SSB

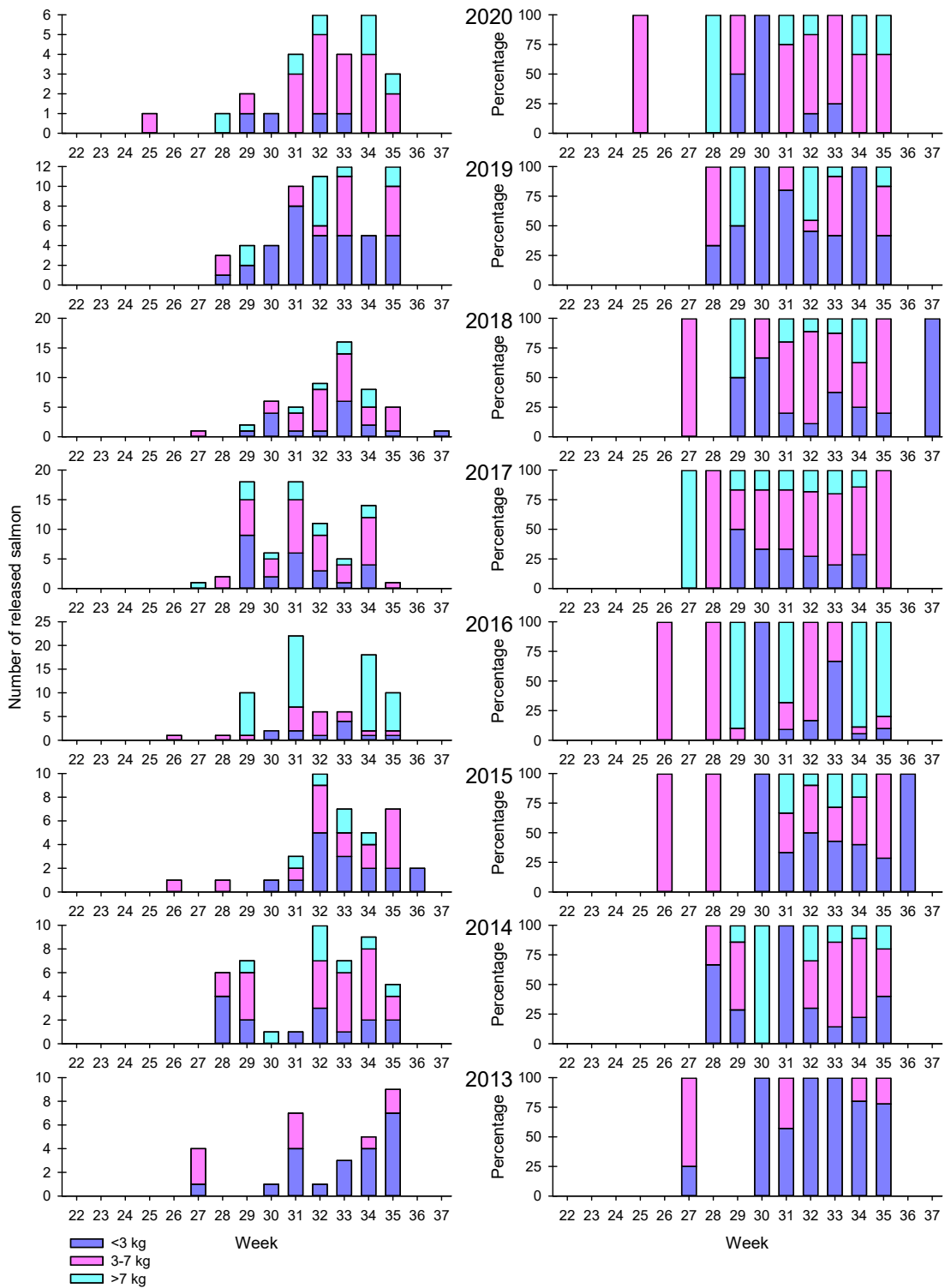


Figure 22. Weekly numbers and proportions of size groups in released salmon in the River Skallelv. Source: SSB

13. Numbers and weights of salmon released annually in rod fishing in the River Komagelv

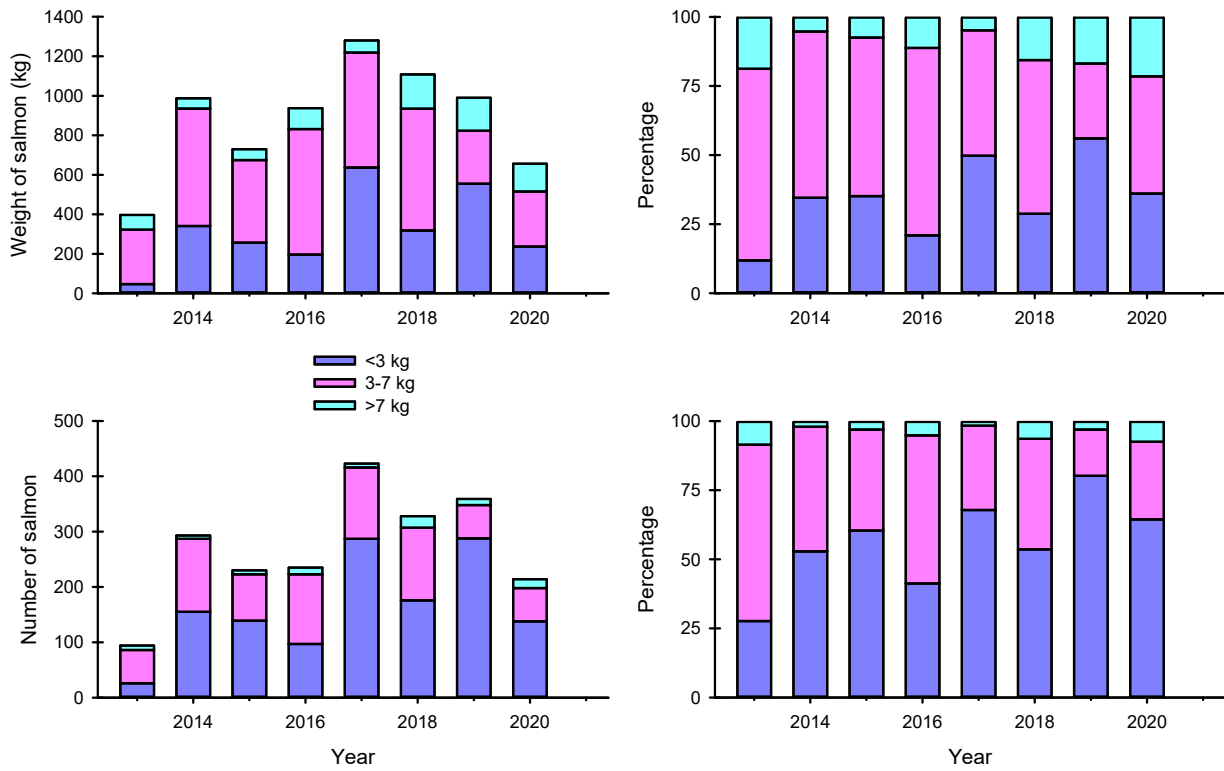


Figure 23. Annual numbers, weights and proportions of size groups in released salmon in the River Komagelv. Source: SSB

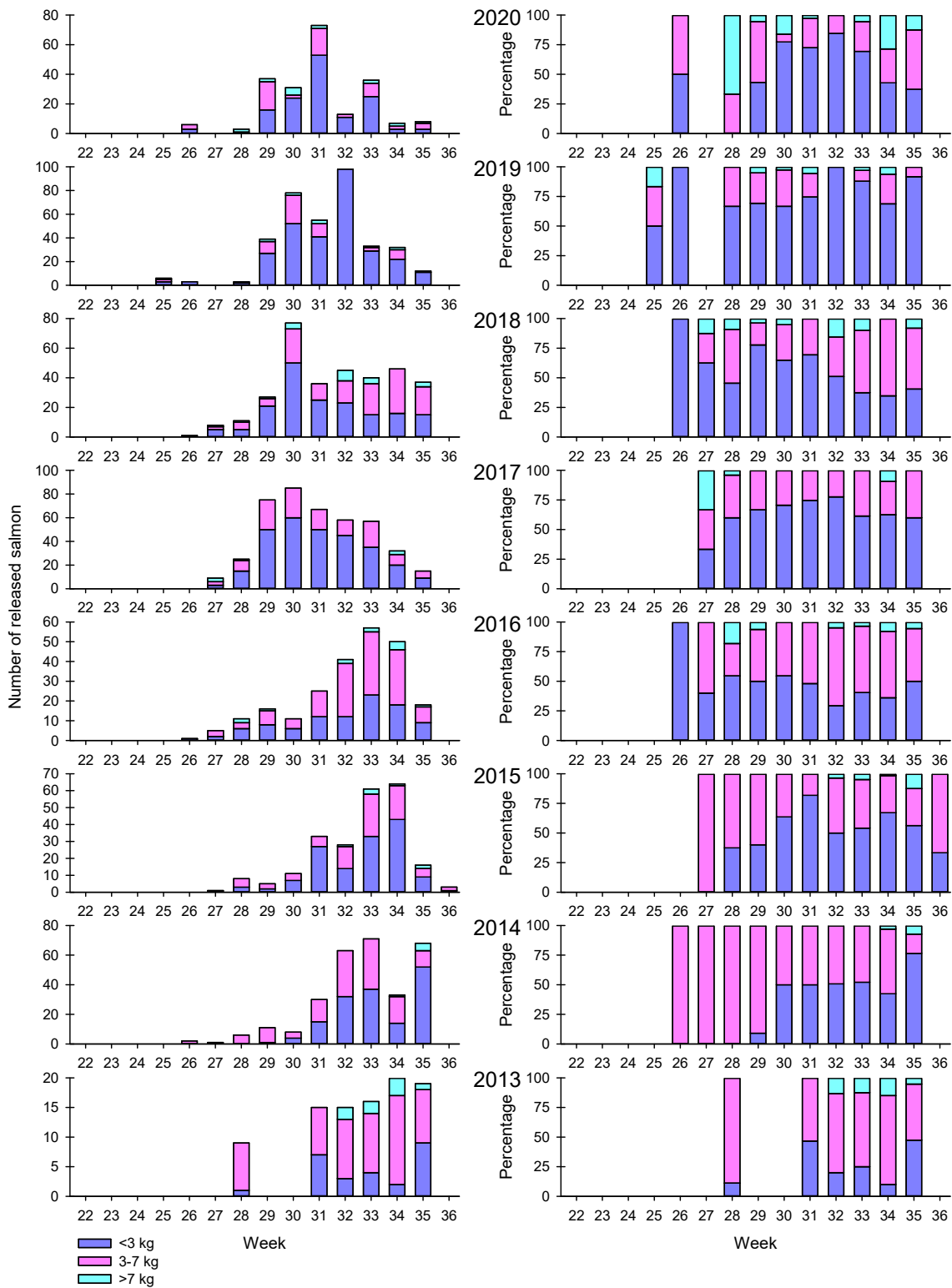


Figure 24. Weekly numbers and proportions of size groups in released salmon in the River Komagelv. Source: SSB

14. Numbers and weights of salmon released annually in rod fishing in the River Sandfjordelv (Båtsfjord)

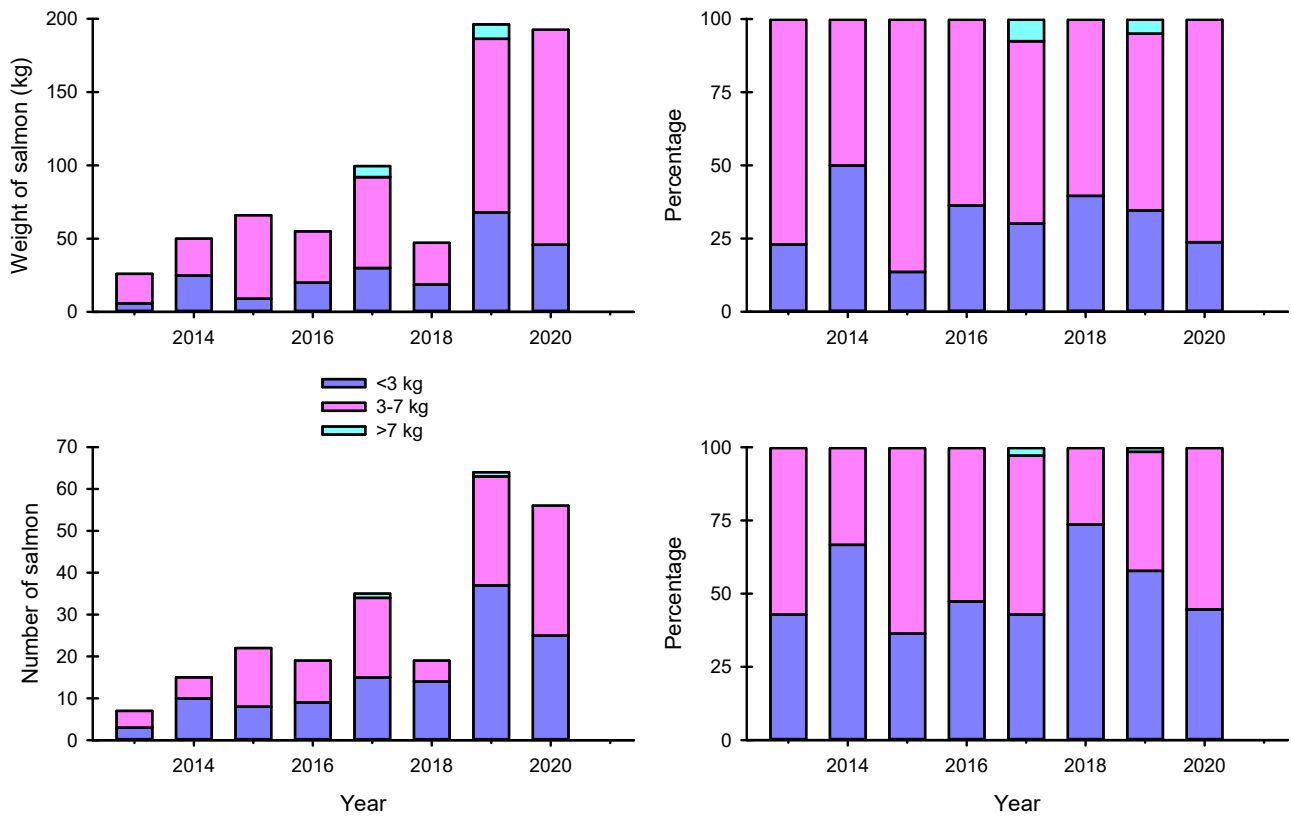


Figure 25. Annual numbers, weights and proportions of size groups in released salmon in the River Sandfjordelv (Båtsfjord). Source: SSB

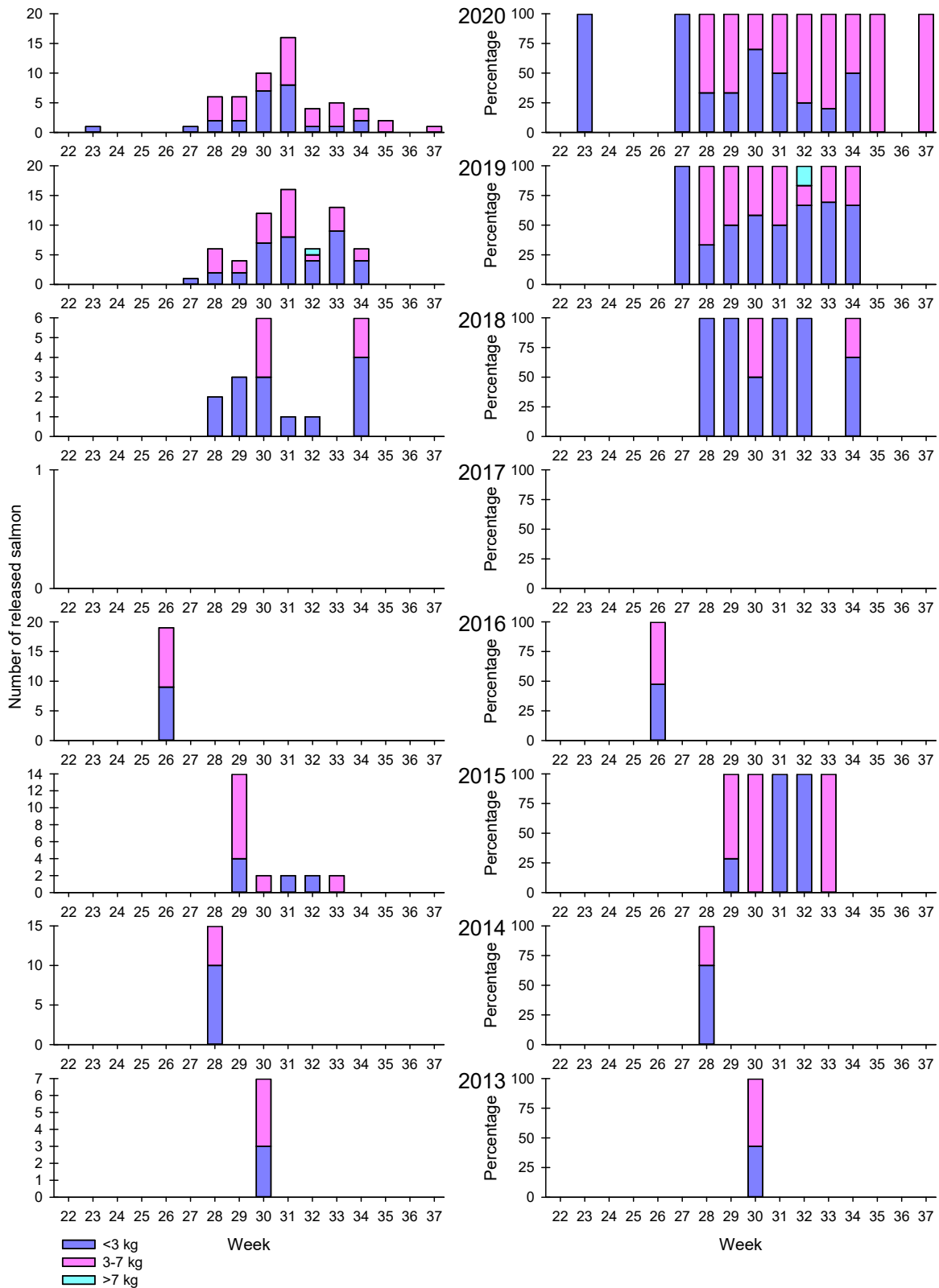


Figure 26. Weekly numbers and proportions of size groups in released salmon in the River Sandfjordelv. Source: SSB

15. Numbers and weights of salmon released annually in rod fishing in the River Syltefjordelv

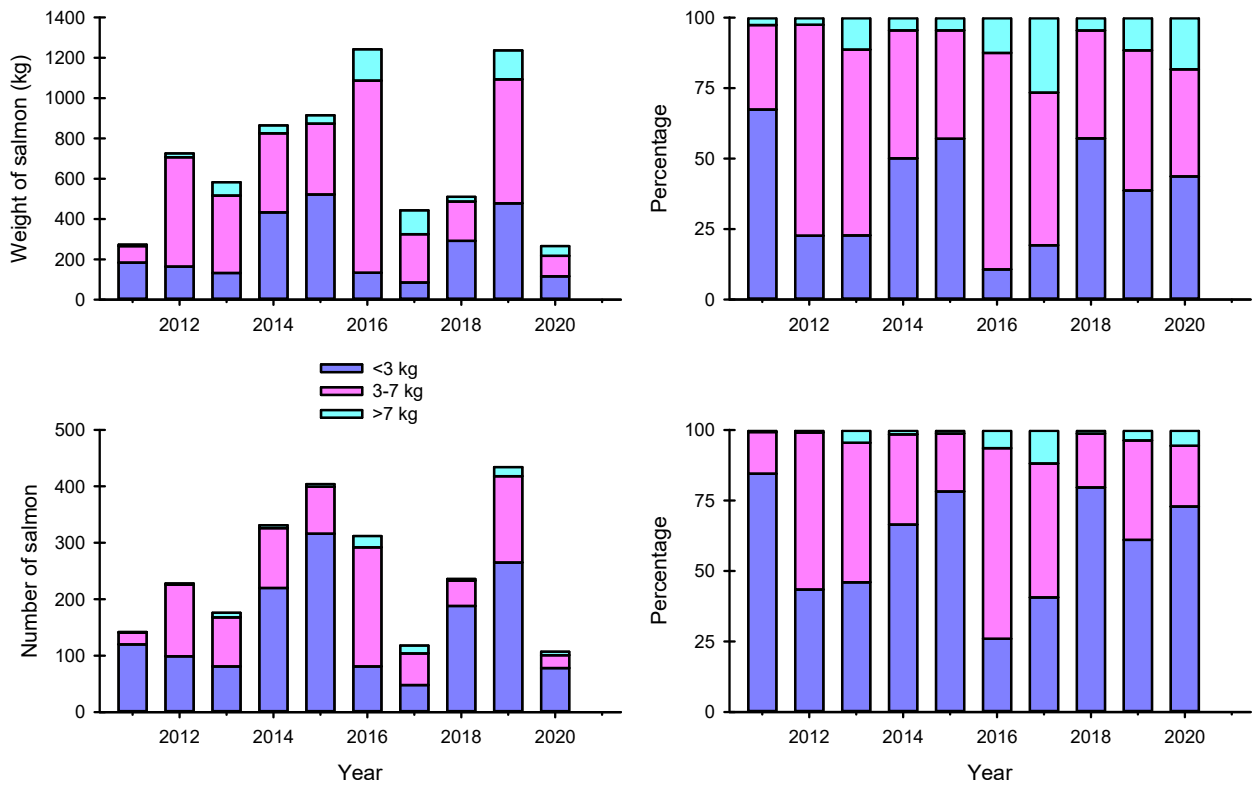


Figure 27. Annual numbers, weights and proportions of size groups in released salmon in the River Syltefjordelv. Source: SSB

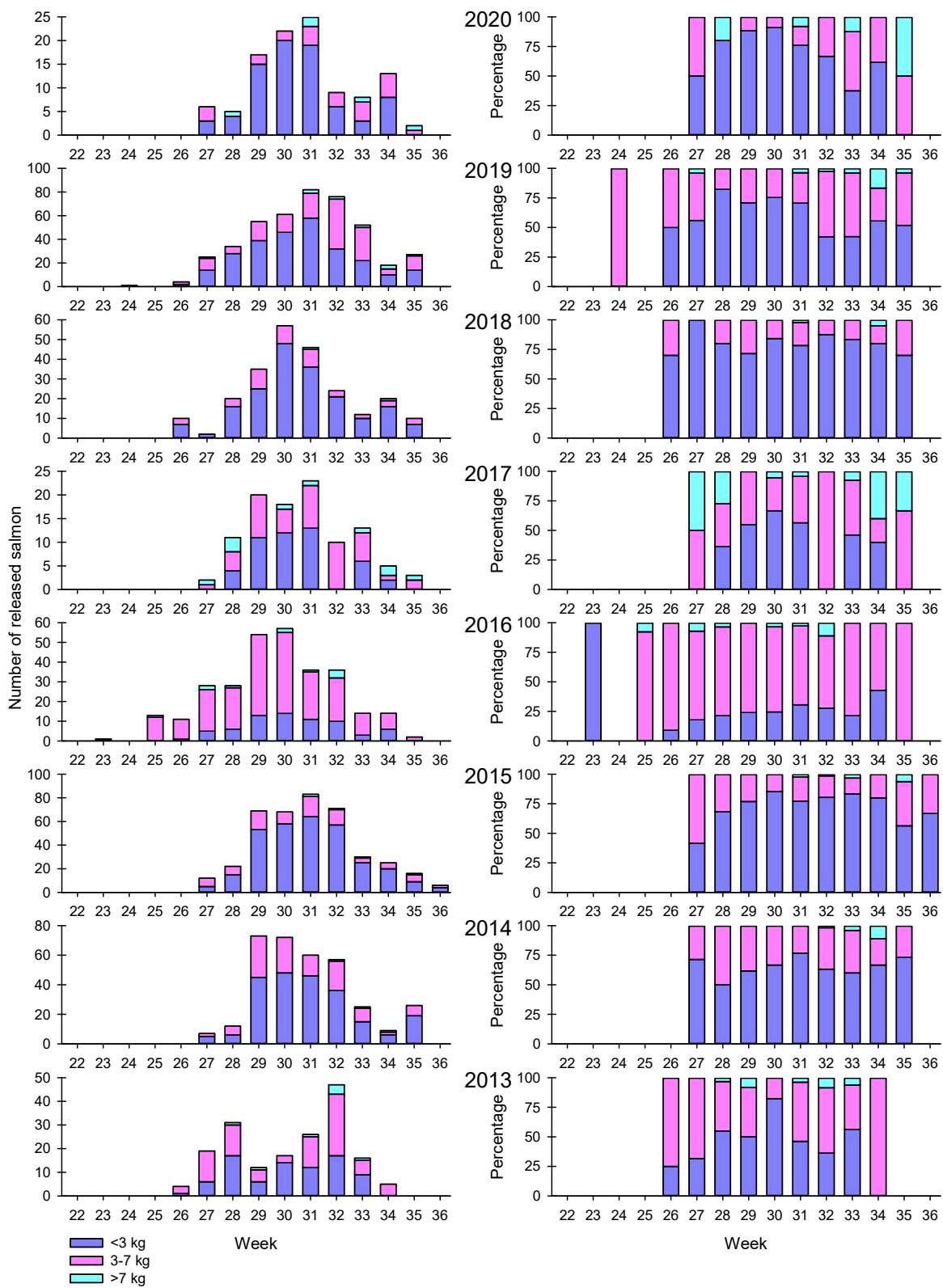


Figure 28. Weekly numbers and proportions of size groups in released salmon in the River Syltefjordelv. Source: SSB

16. Numbers and weights of salmon released annually in rod fishing in the River Kongsfjordelv

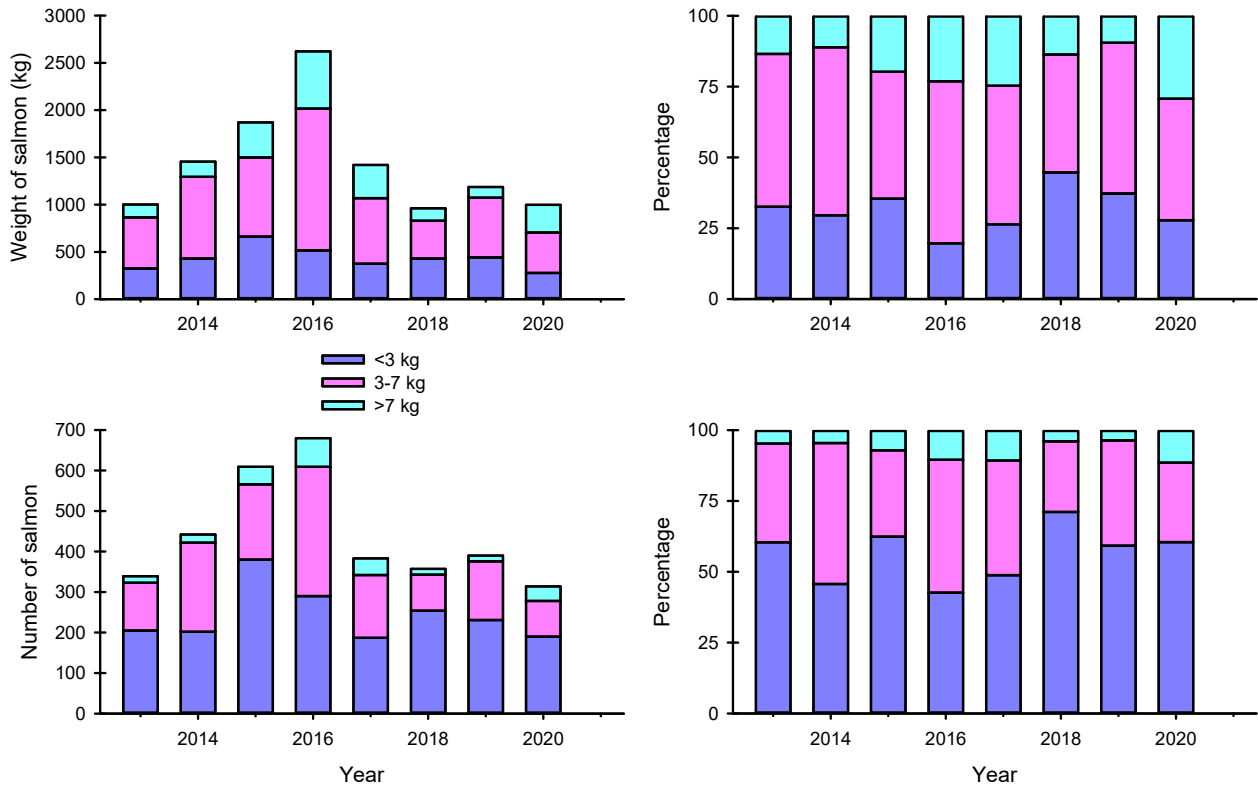


Figure 29. Annual numbers, weights and proportions of size groups in released salmon in the River Kongsfjordelv. Source: SSB

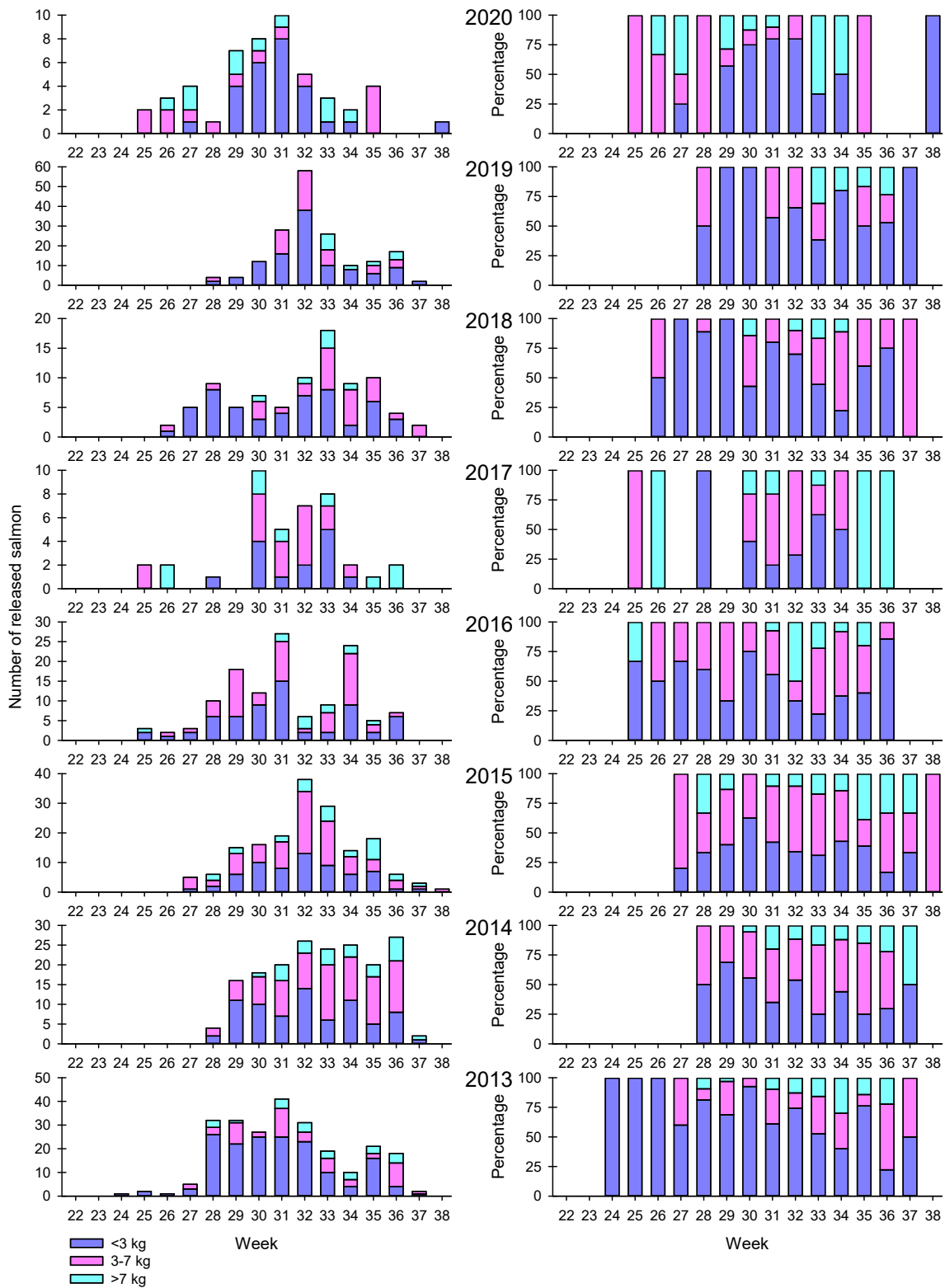


Figure 30. Weekly numbers and proportions of size groups in released salmon in the River Kongsfjordelv. Source: SSB

17. Numbers and weights of salmon released annually in rod fishing in the River Stordalselv (Berlevåg)

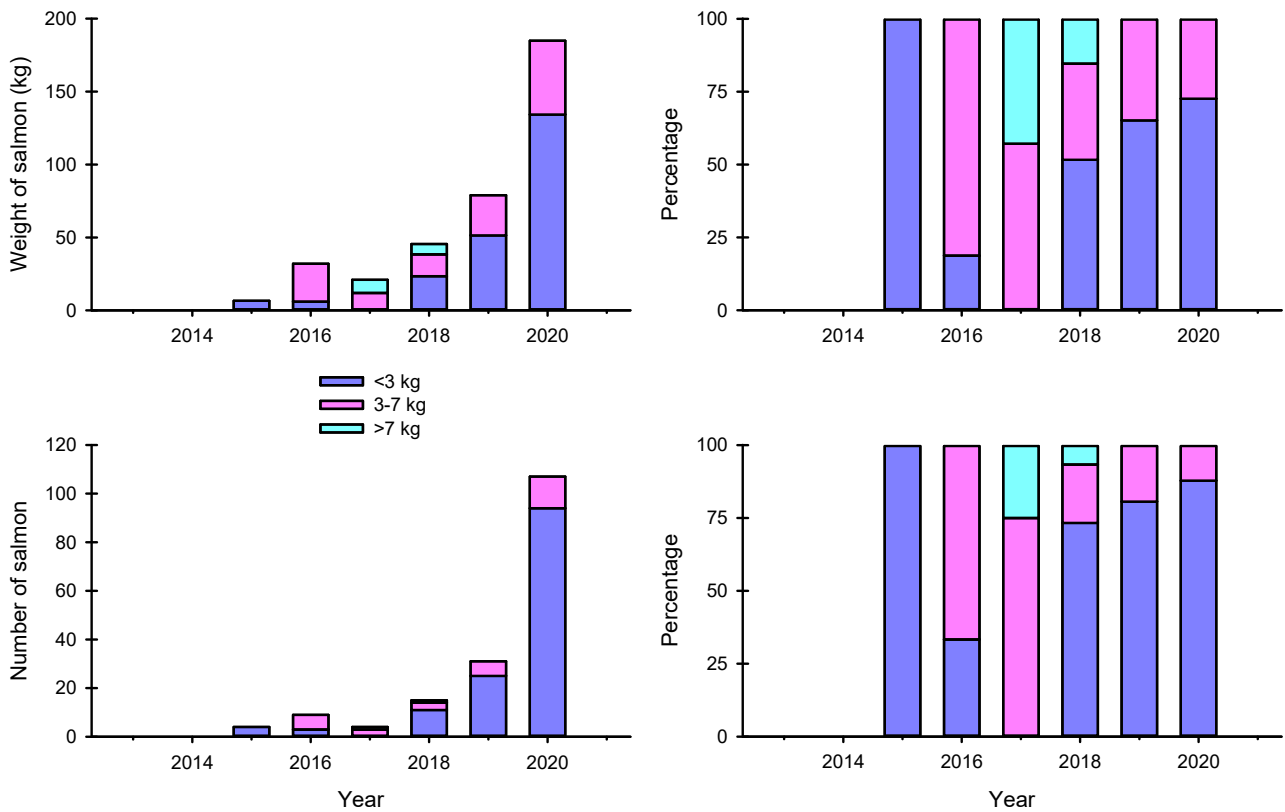


Figure 31. Annual numbers, weights and proportions of size groups in released salmon in the River Stordalselv (Berlevåg). Source: SSB

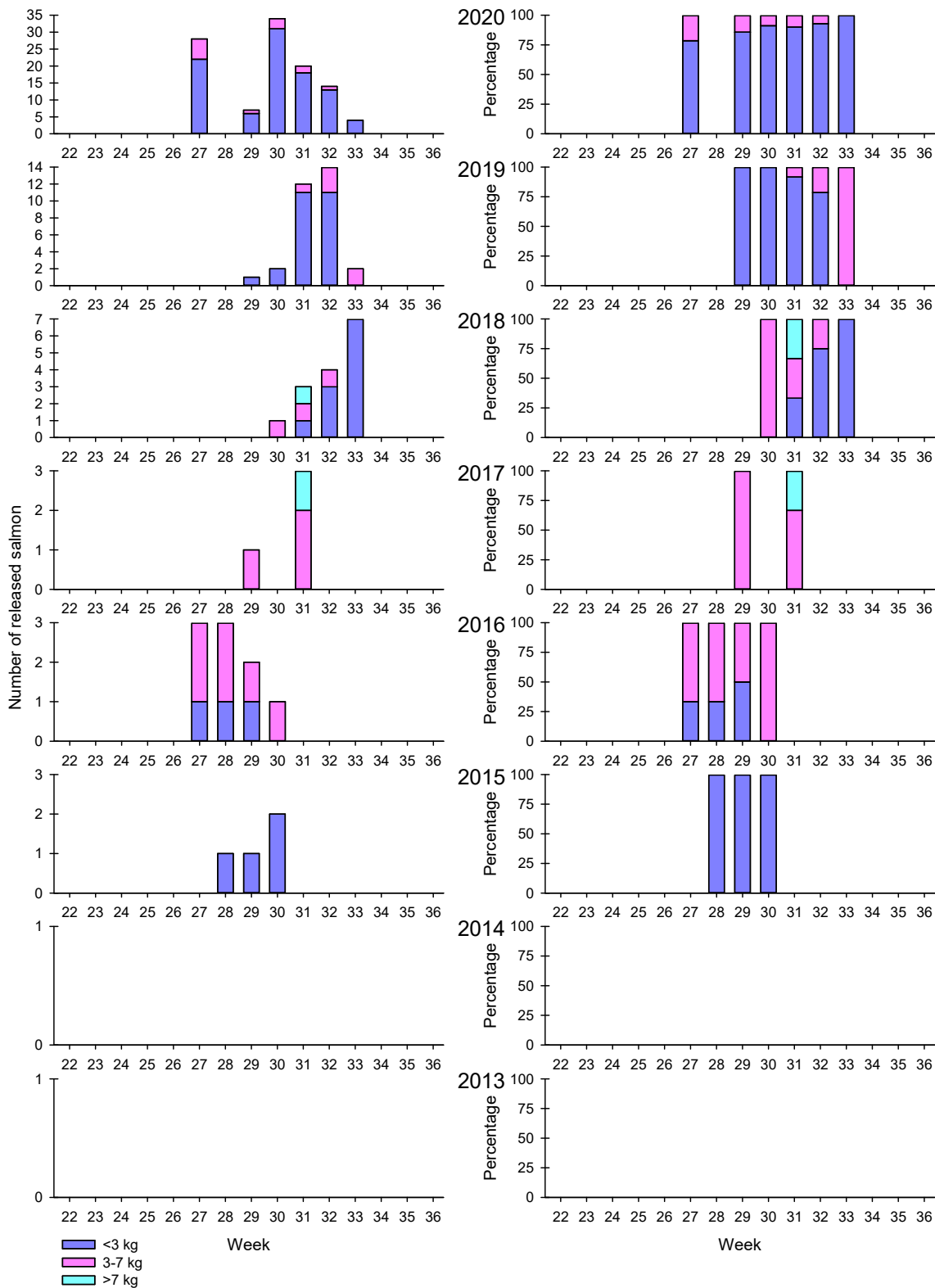


Figure 32. Weekly numbers and proportions of size groups in released salmon in the River Stordalselv. Source: SSB

18. Numbers and weights of salmon released annually in rod fishing in the River Tana watershed (Norway)

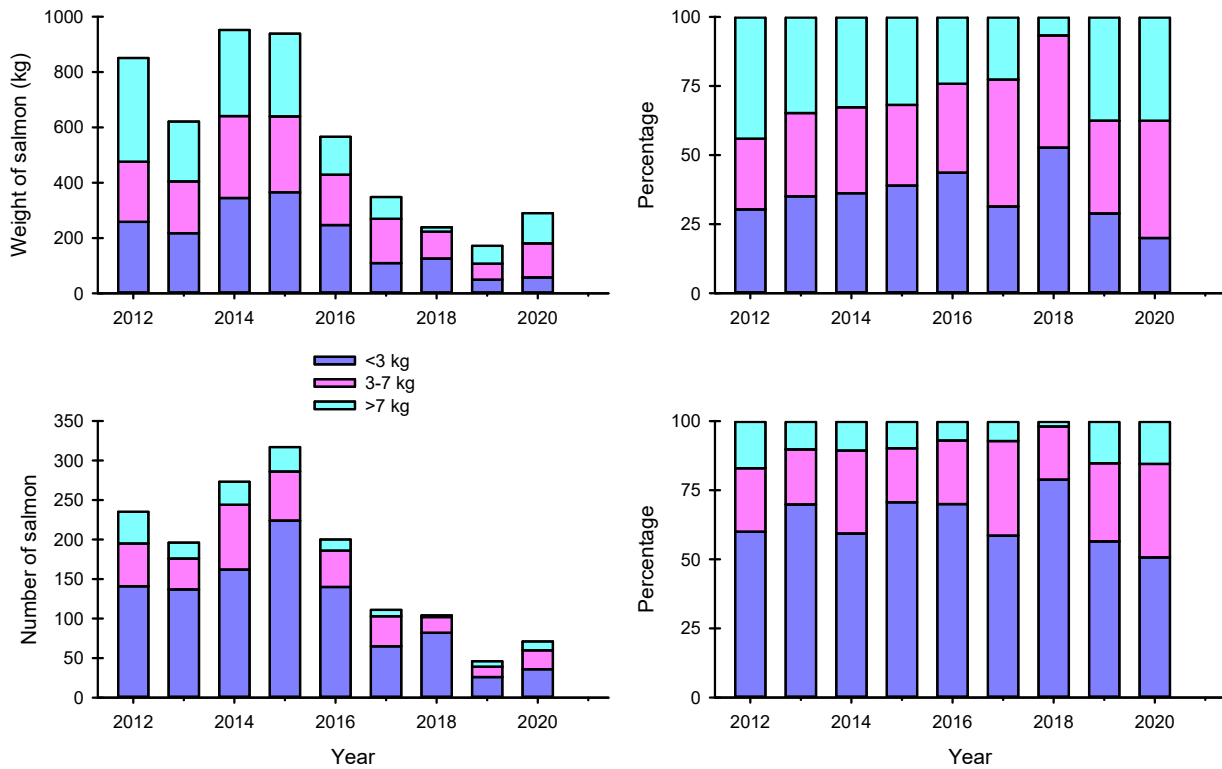


Figure 33. Annual numbers, weights and proportions of size groups in released salmon in the River Tana watershed (Norway). Source: SSB

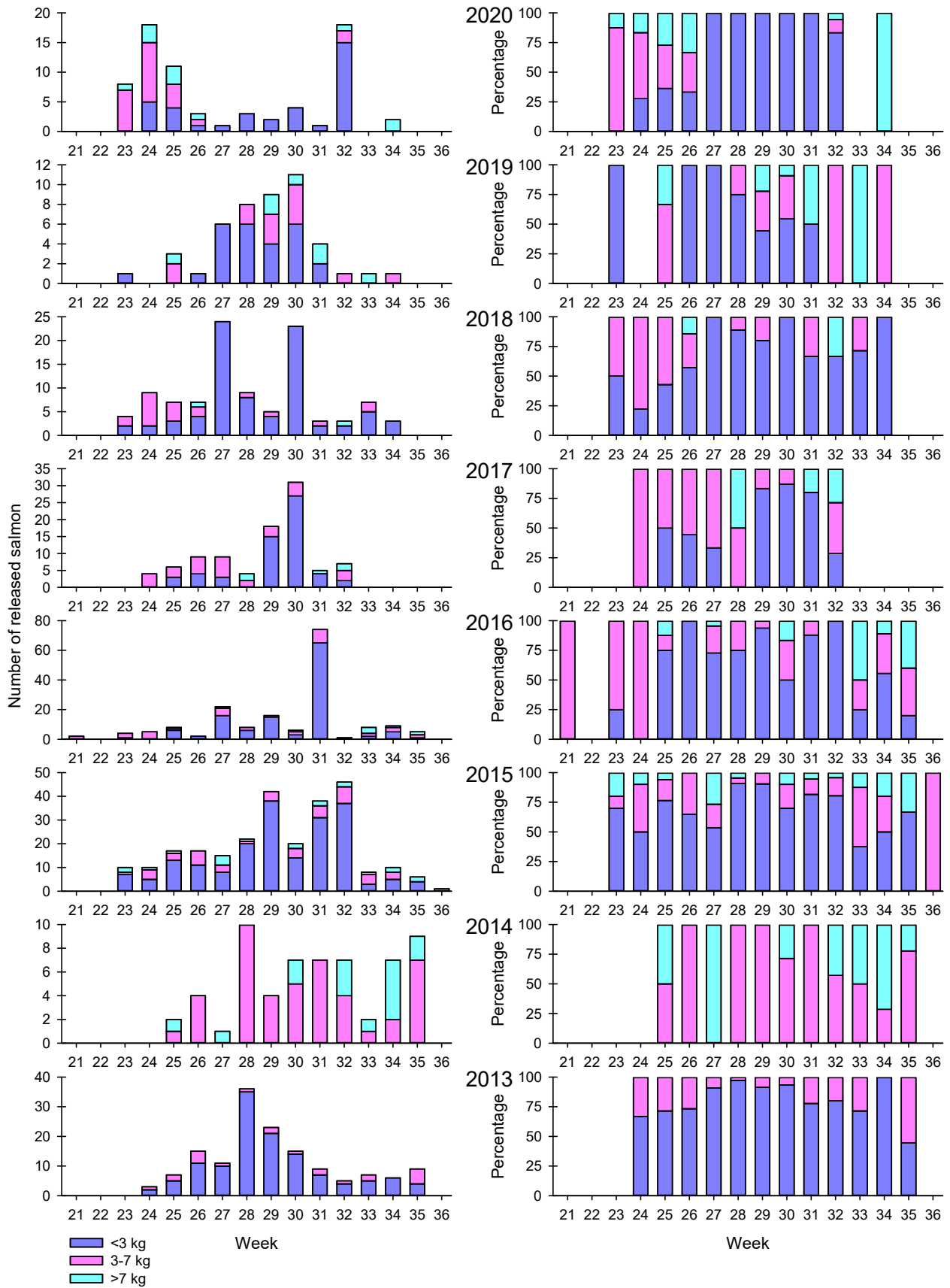


Figure 34. Weekly numbers and proportions of size groups in released salmon in the River Tana watershed (Norway). Source: SSB

19. Numbers and weights of salmon released annually in rod fishing in the River Langfjordelv

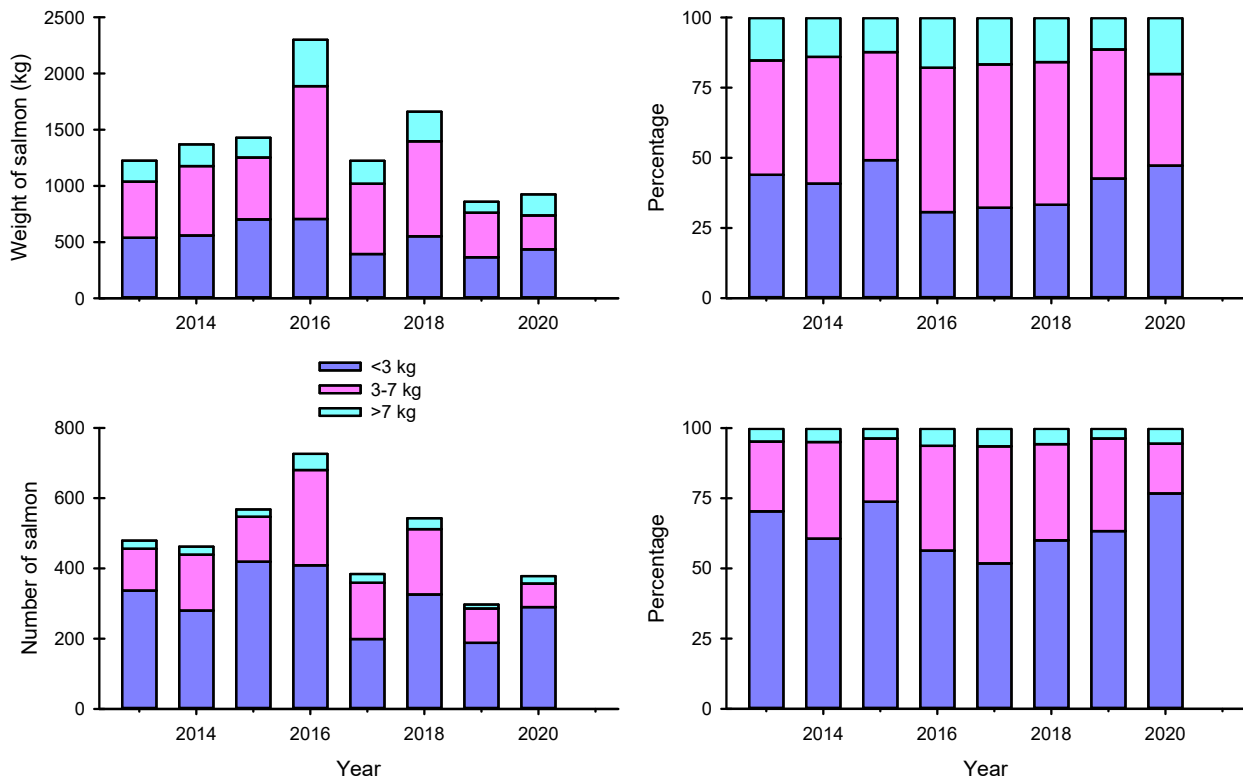


Figure 35. Annual numbers, weights and proportions of size groups in released salmon in the River Langfjordelv (Laggo). Source: SSB

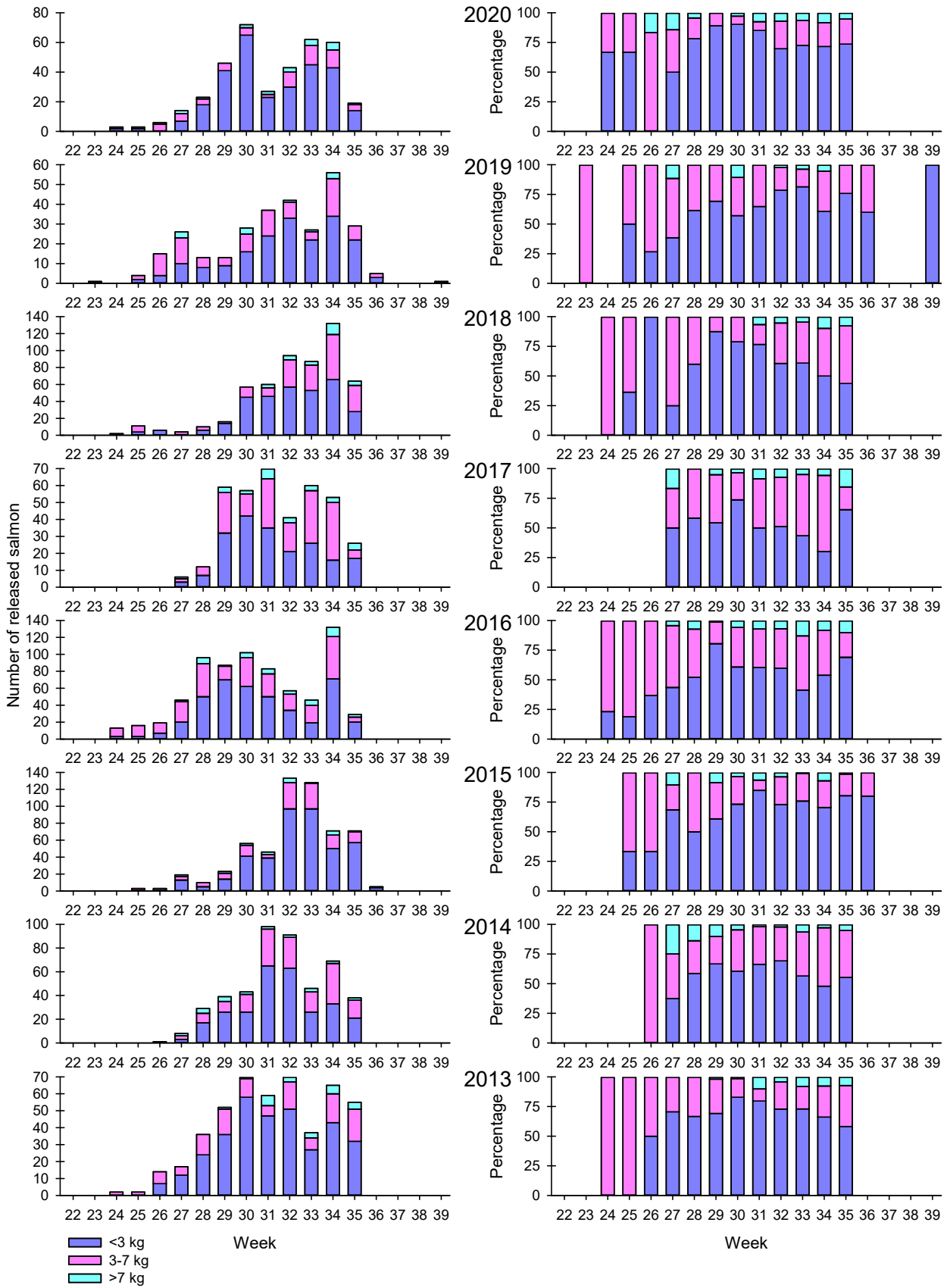


Figure 36. Weekly numbers and proportions of size groups in released salmon in the River Langfjordelv (Laggo). Source: SSB

20. Numbers and weights of salmon released annually in rod fishing in the River Risfjordelv

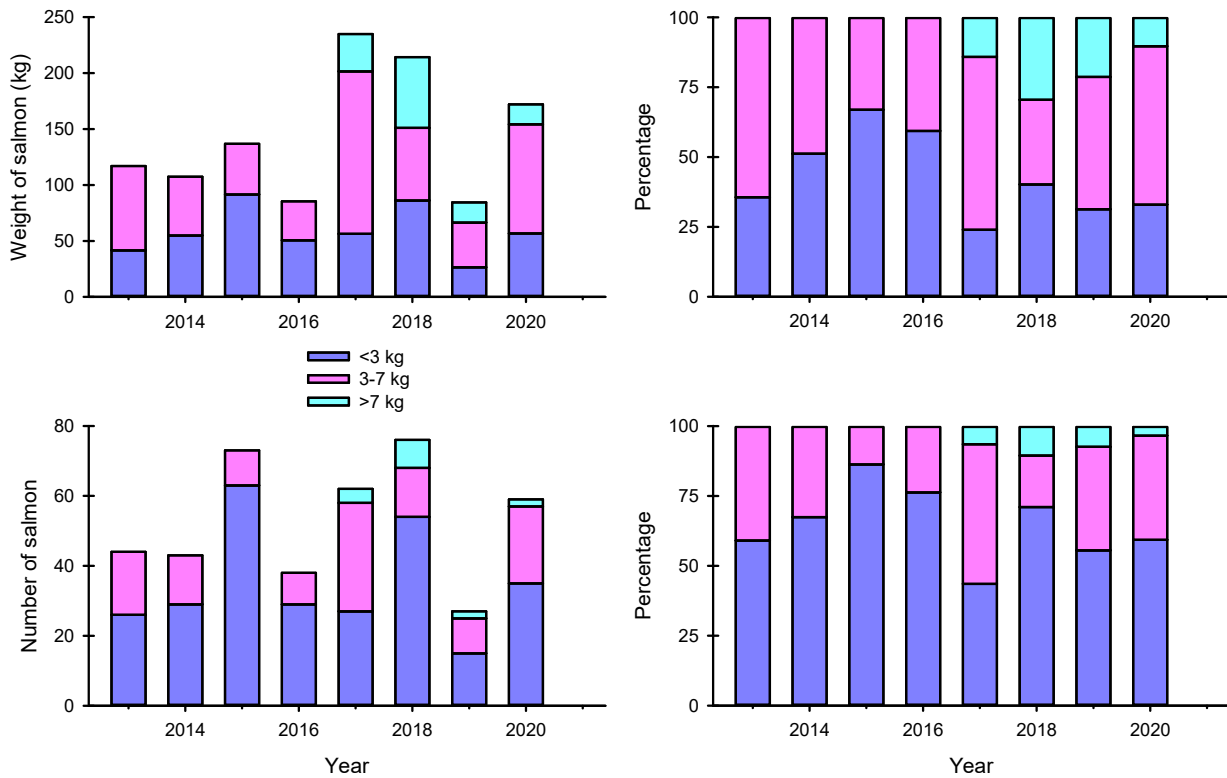


Figure 37. Annual numbers, weights and proportions of size groups in released salmon in the River Risfjordelv. Source: SSB

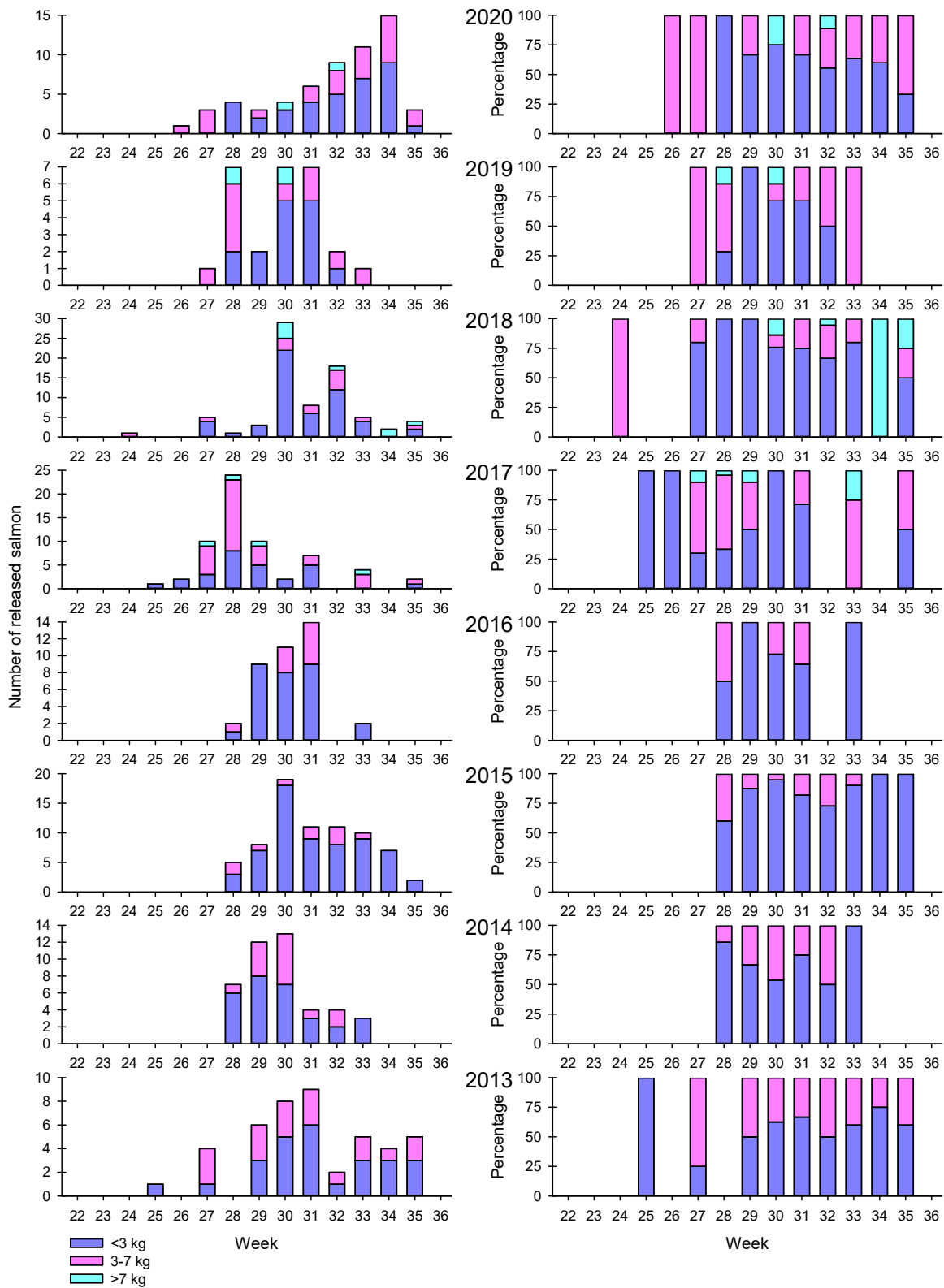


Figure 38. Weekly numbers and proportions of size groups in released salmon in the River Risfjordelv. Source: SSB

21. Numbers and weights of salmon released annually in rod fishing in the River Sandfjordelv (Gamvik)

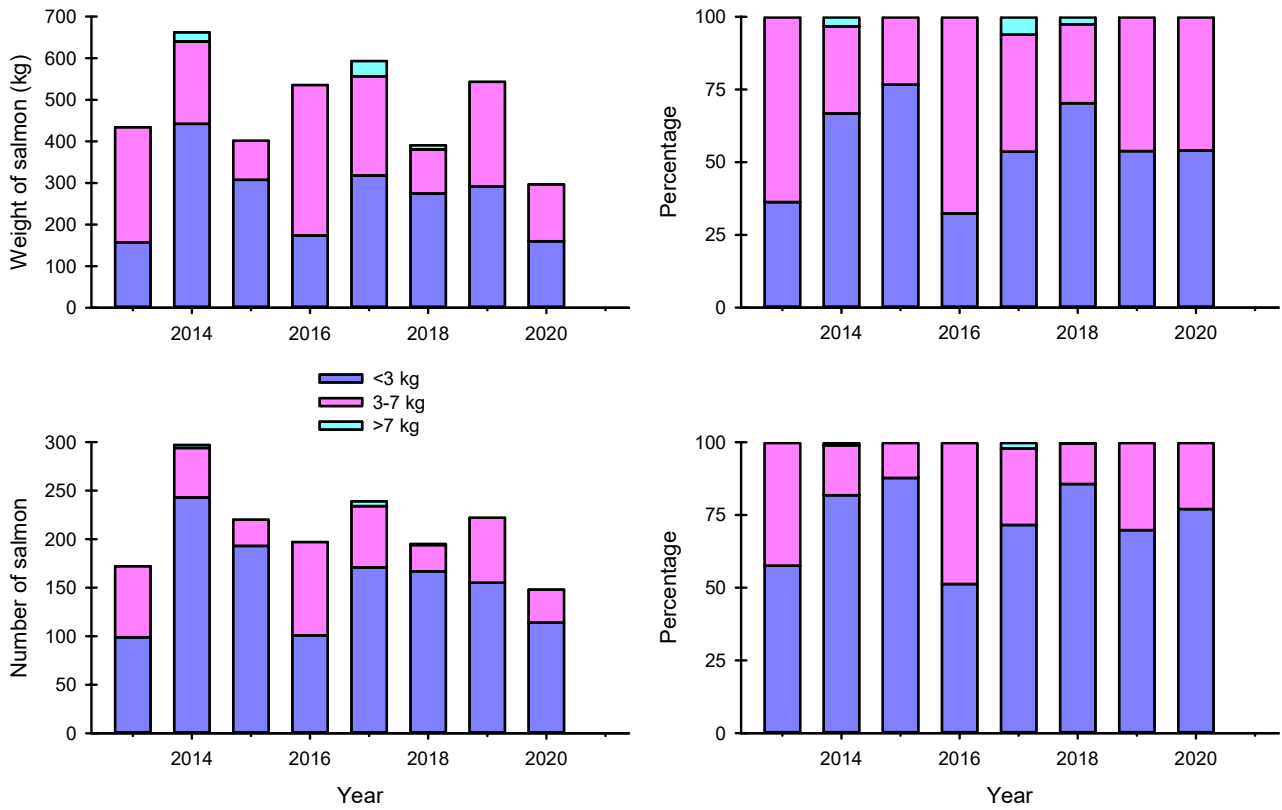


Figure 39. Annual numbers, weights and proportions of size groups in released salmon in the River Sandfjordelv (Gamvik). Source: SSB

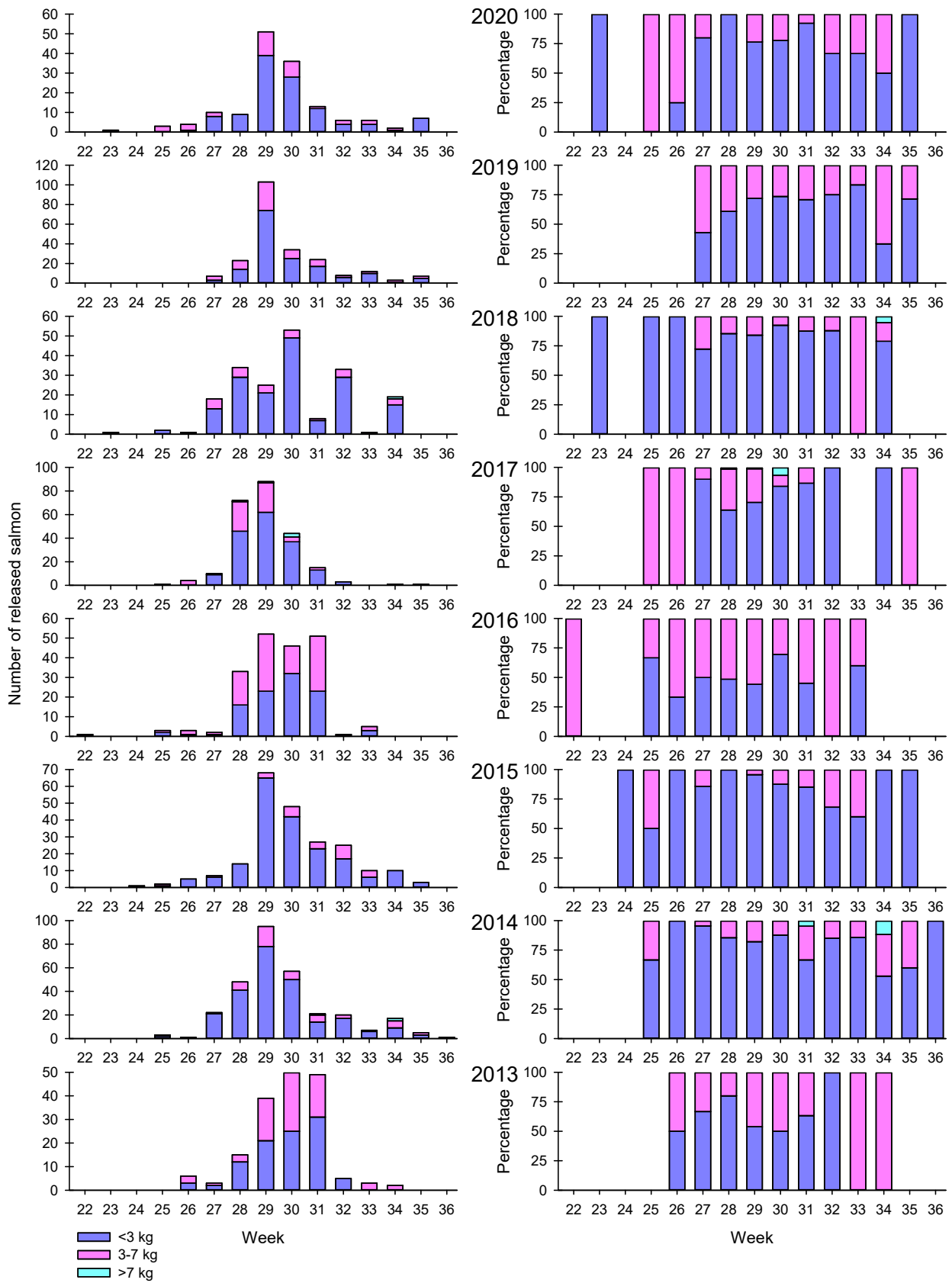


Figure 40. Weekly numbers and proportions of size groups in released salmon in the River Sandfjordelv (Gamvik). Source: SSB

22. Numbers and weights of salmon released annually in rod fishing in the River Storelv (Lebesby)

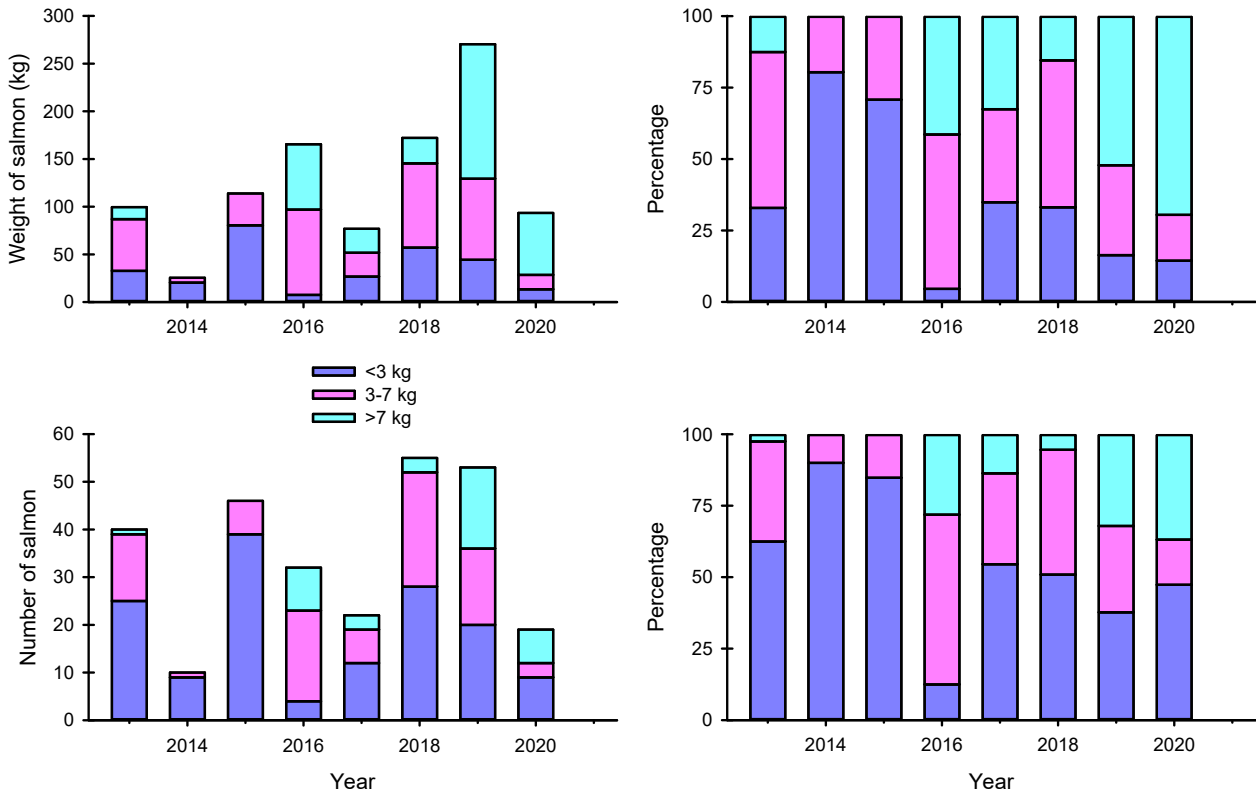


Figure 41. Annual numbers, weights and proportions of size groups in released salmon in the River Storelv (Lebesby). Source: SSB

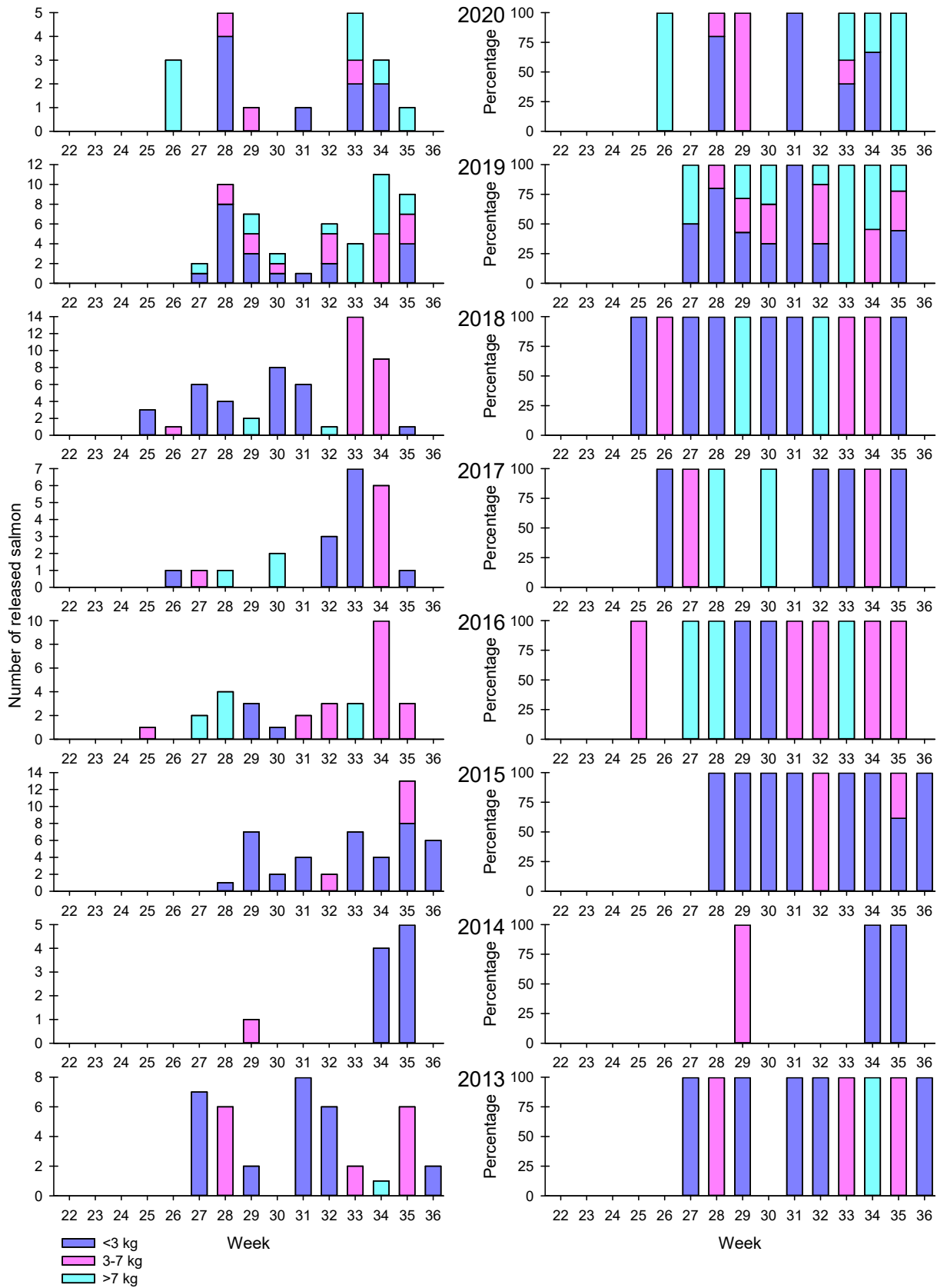


Figure 42. Weekly numbers and proportions of size groups in released salmon in the River Storelv (Lebesby). Source: SSB

23. Numbers and weights of salmon released annually in rod fishing in the River Veidneselv

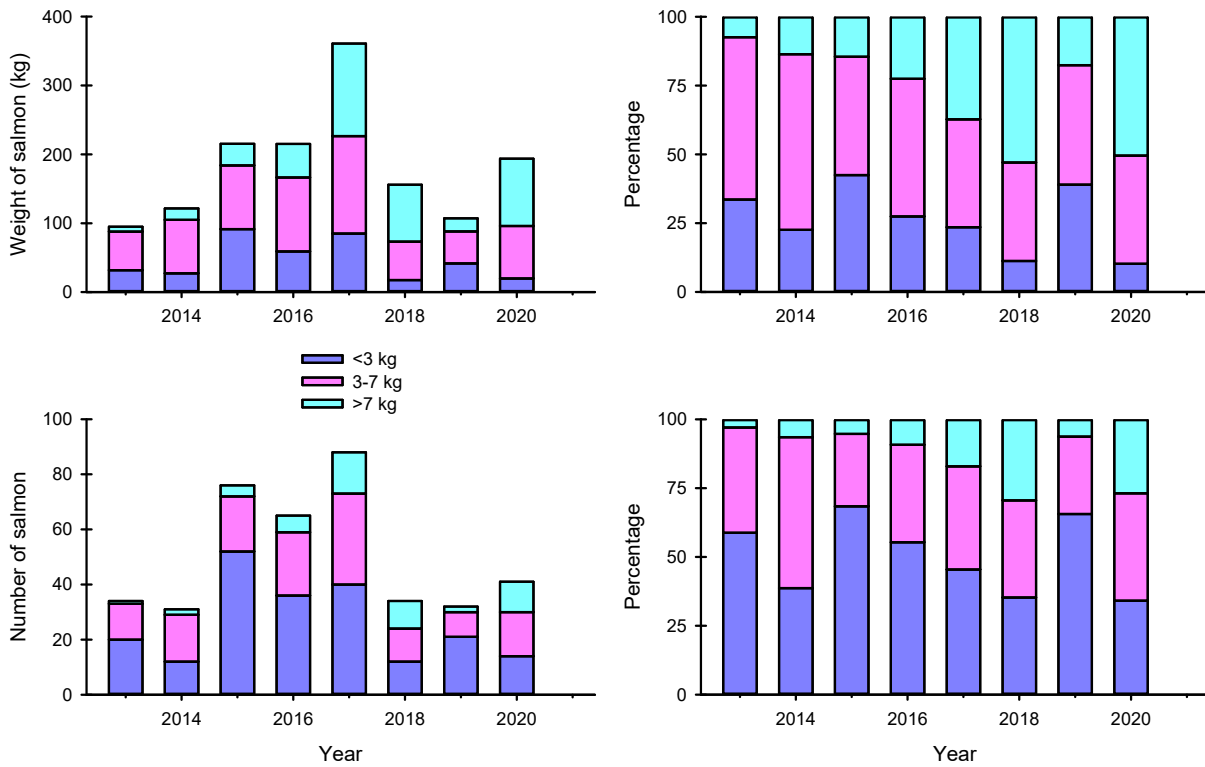


Figure 43. Annual numbers, weights and proportions of size groups in released salmon in the River Veidneselv. Source: SSB

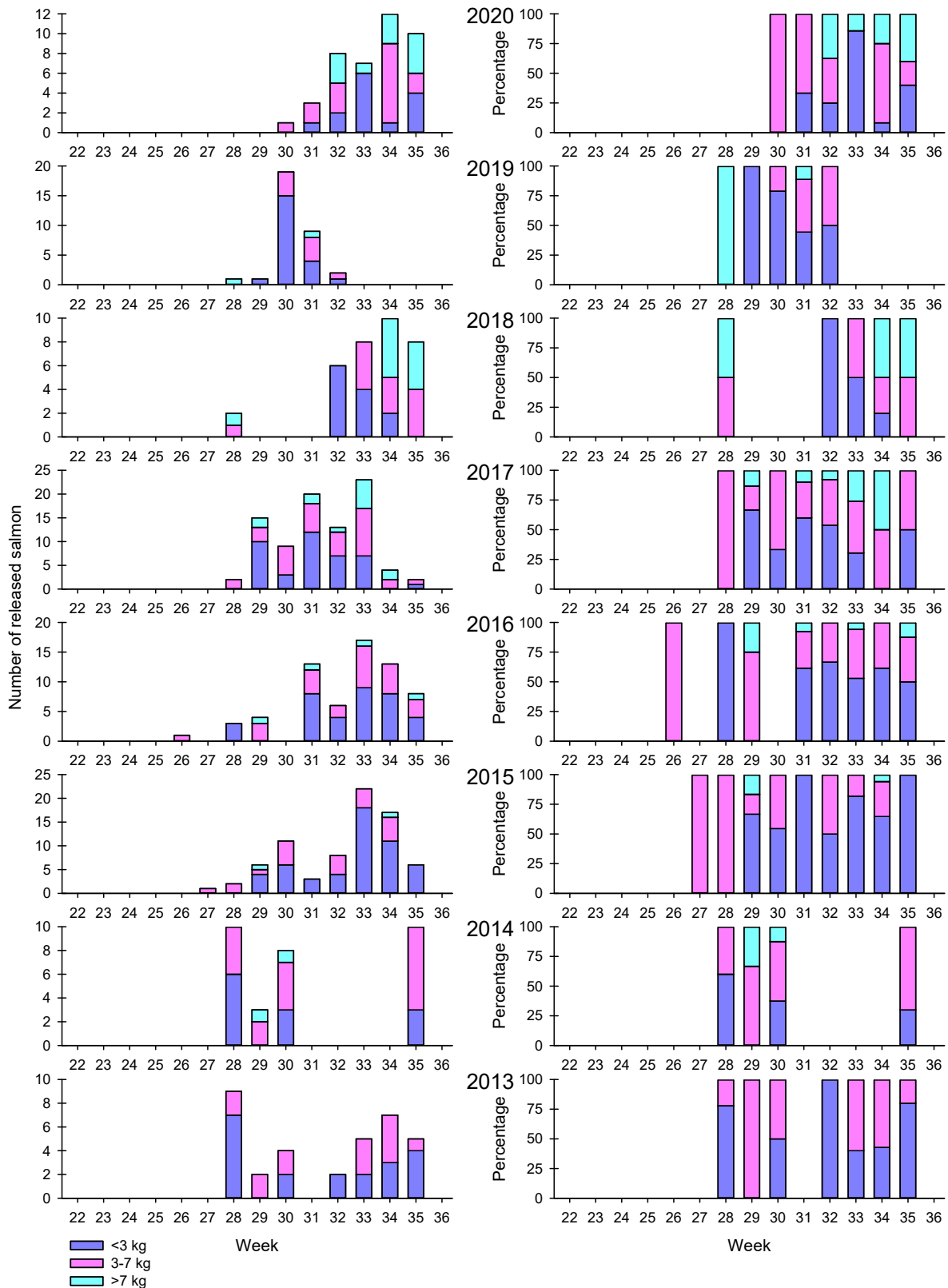


Figure 44. Weekly numbers and proportions of size groups in released salmon in the River Veidneselv. Source: SSB

24. Numbers and weights of salmon released annually in rod fishing in the River Lille Porsangerelv

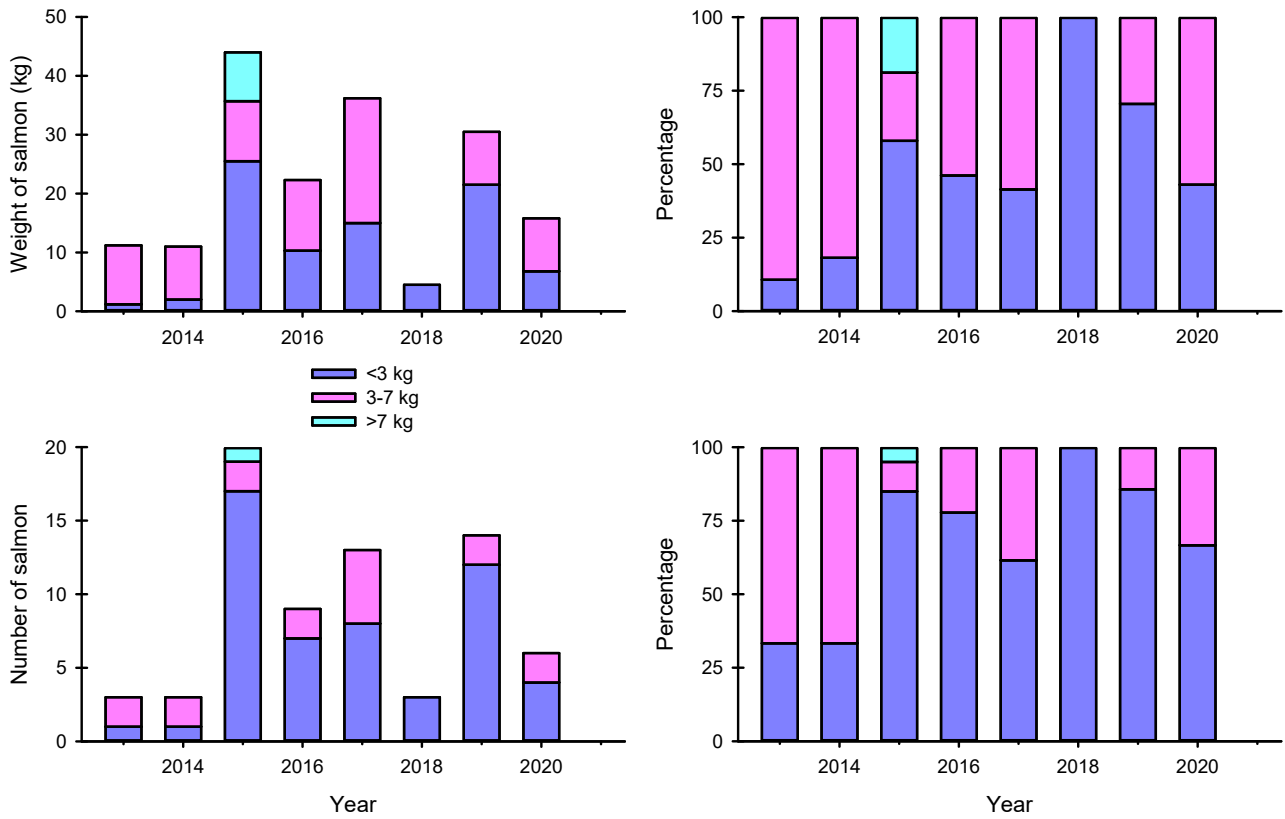


Figure 45. Annual numbers, weights, and proportions of size groups in released salmon in the River Lille Porsangerelv. Source: SSB

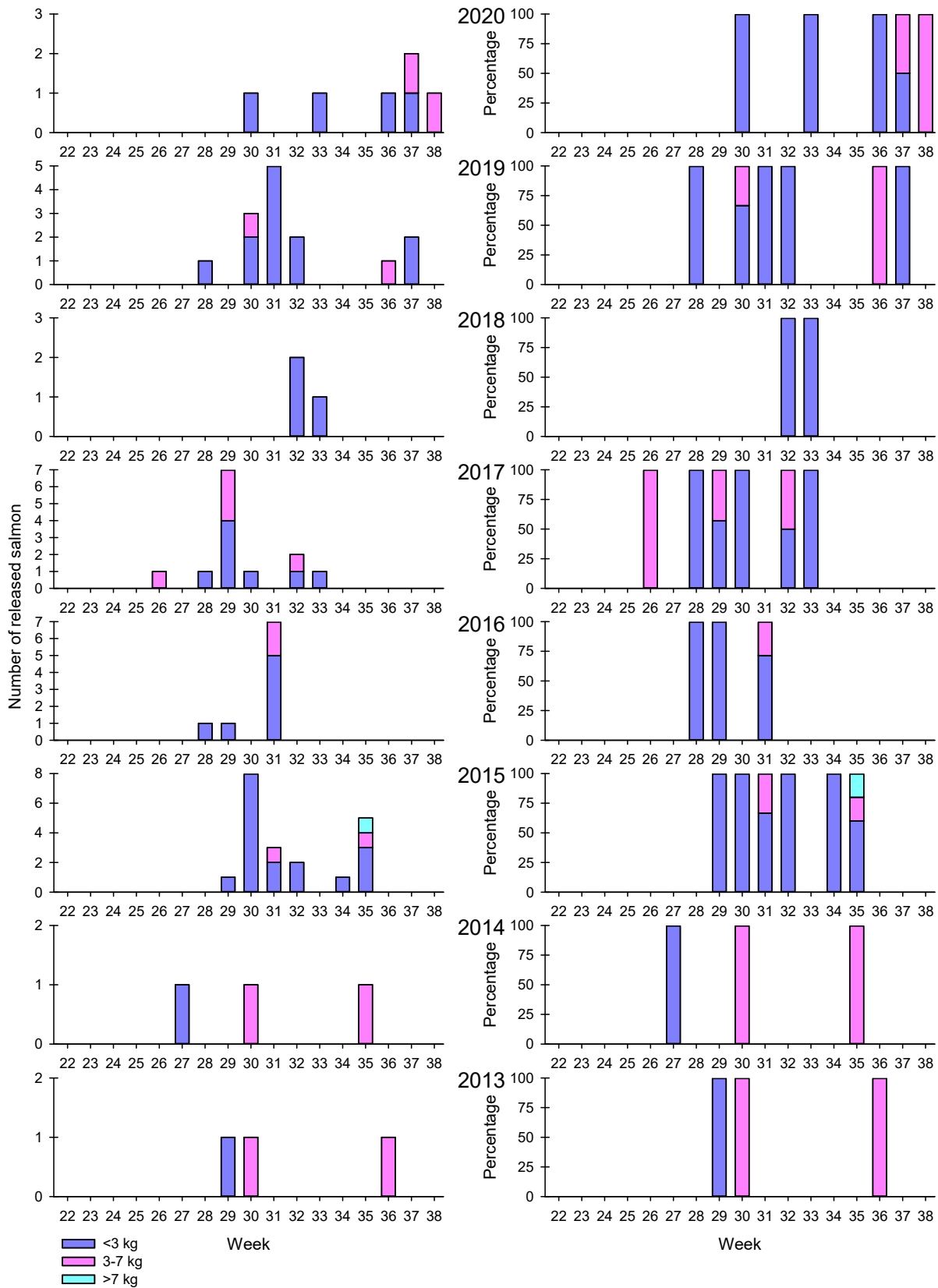


Figure 46. Weekly numbers and proportions of size groups in released salmon in the River Lille Porsangerelv. Source: SSB

25. Numbers and weights of salmon released annually in rod fishing in the River Børselv

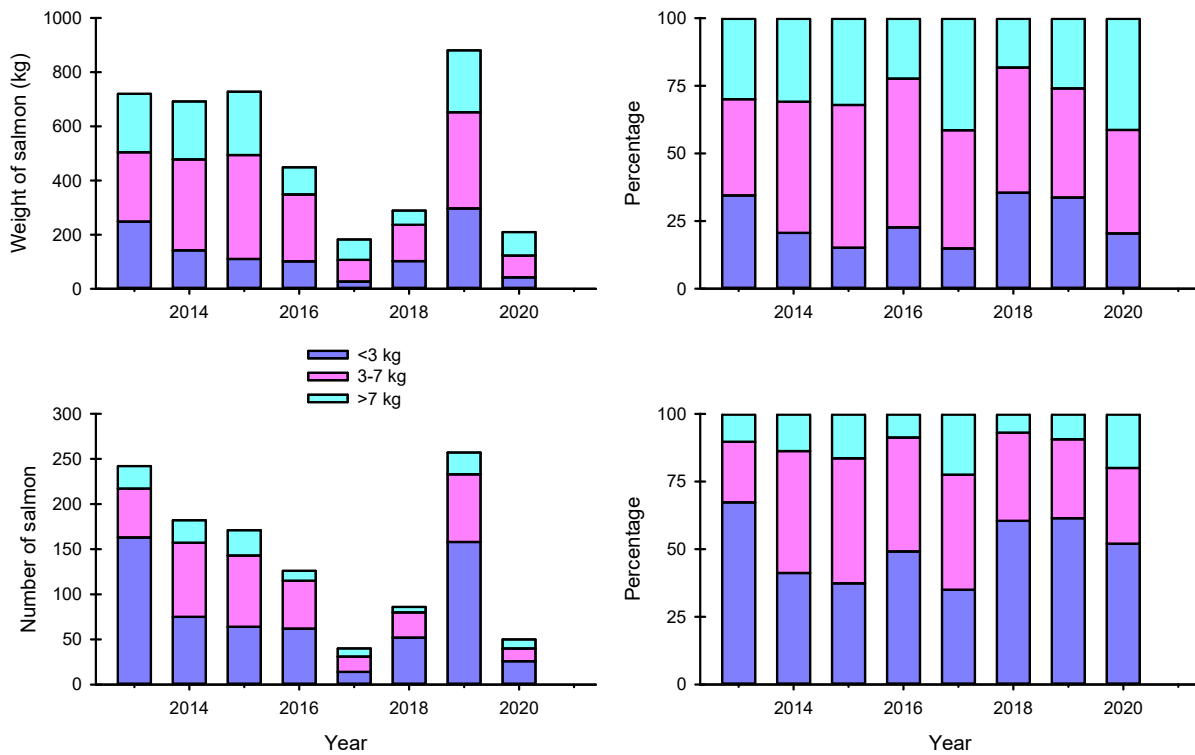


Figure 47. Annual numbers, weights, and proportions of size groups in released salmon in the River Børselv. Source: SSB

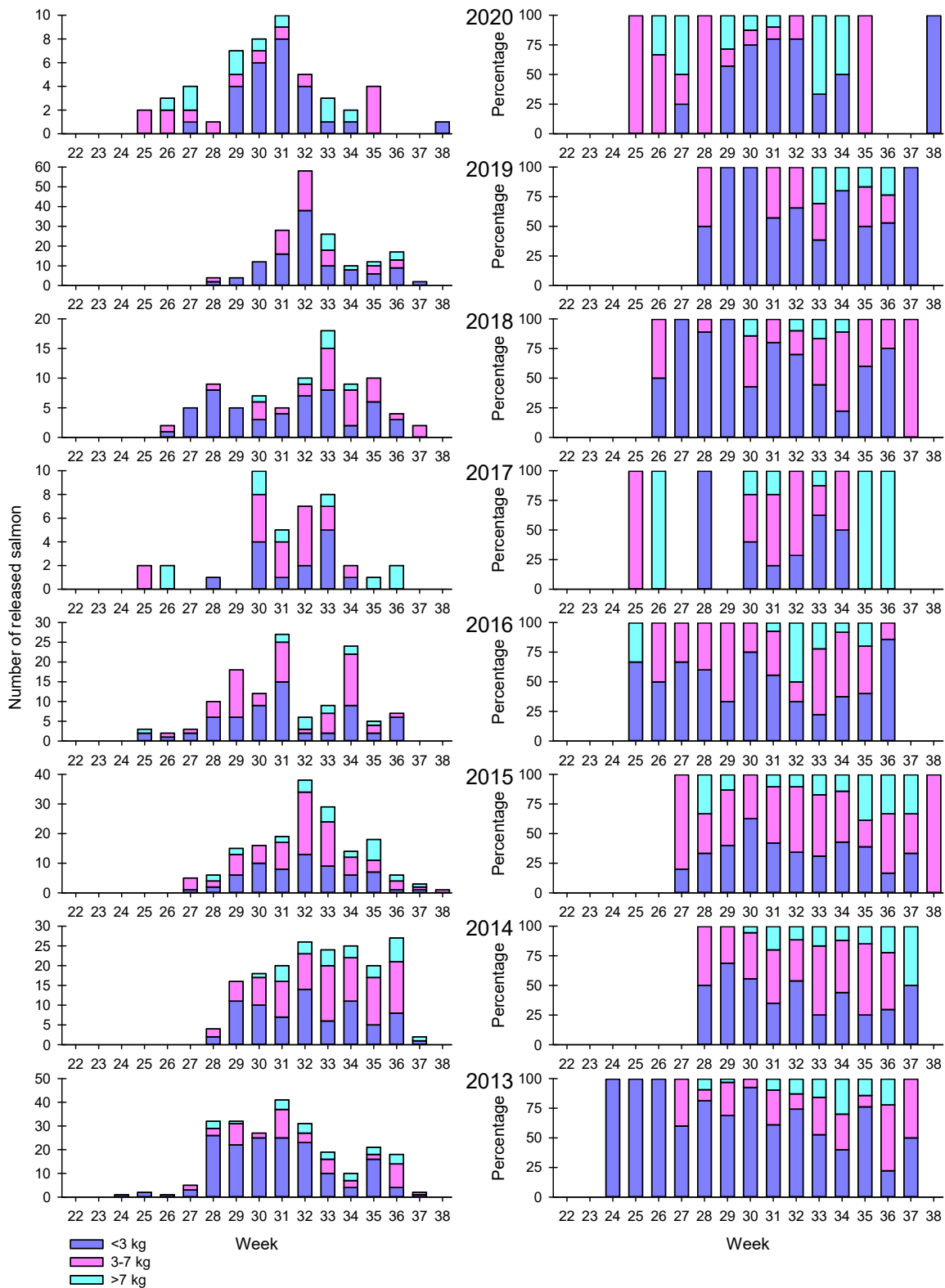


Figure 48. Weekly numbers and proportions of size groups in released salmon in the River Børselv. Source: SSB

26. Numbers and weights of salmon released annually in rod fishing in the River Lakselv

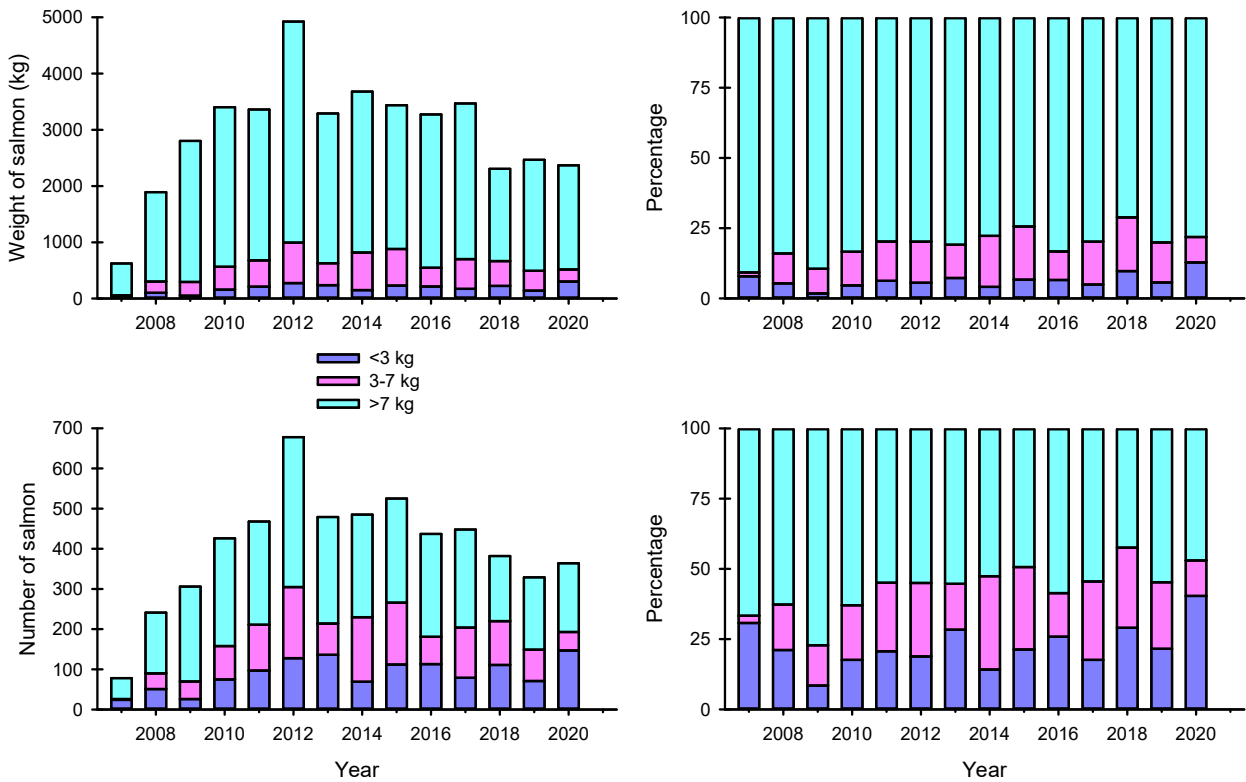


Figure 49. Annual numbers, weights and proportions of size groups in released salmon in the River Lakselv. Source: SSB

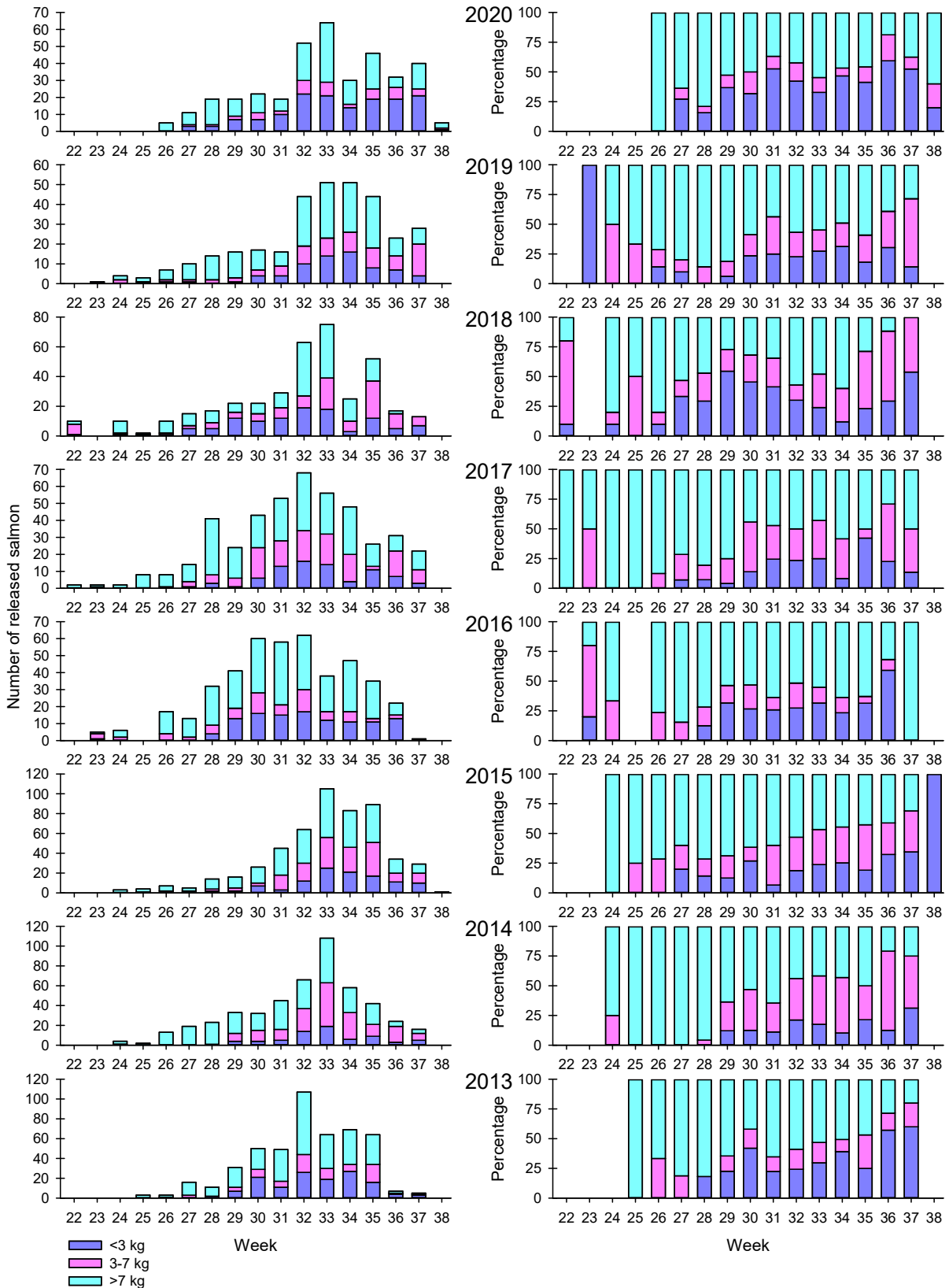


Figure 50. Weekly numbers and proportions of size groups in released salmon in the River Laksely. Source: SSB

27. Numbers and weights of salmon released annually in rod fishing in the River Stabburselv

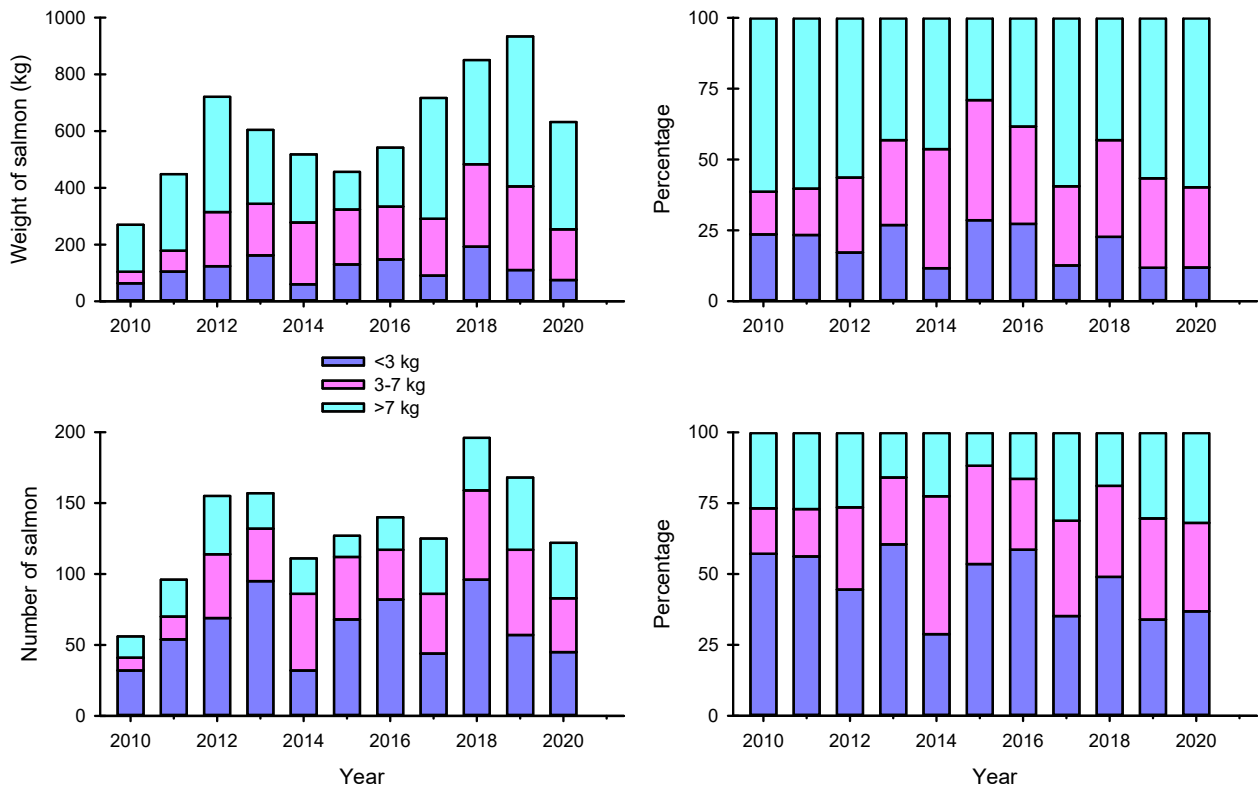


Figure 51. Annual numbers, weights, and proportions of size groups in released salmon in the river Stabburselv. Source: SSB

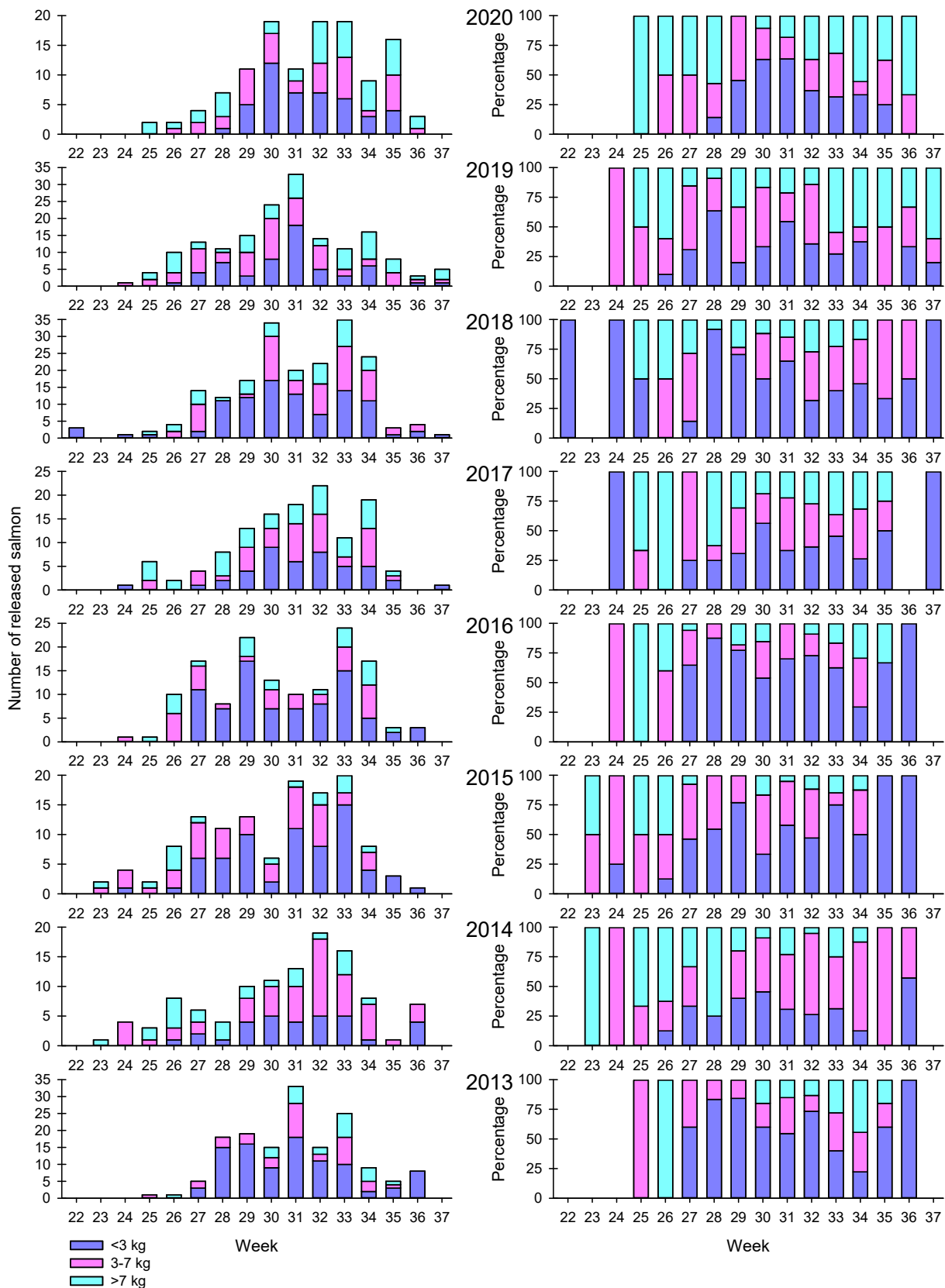


Figure 52. Weekly numbers and proportions of size groups in released salmon in the River Stabburselv. Source: SSB

28. Numbers and weights of salmon released annually in rod fishing in the River Repparfjordelv

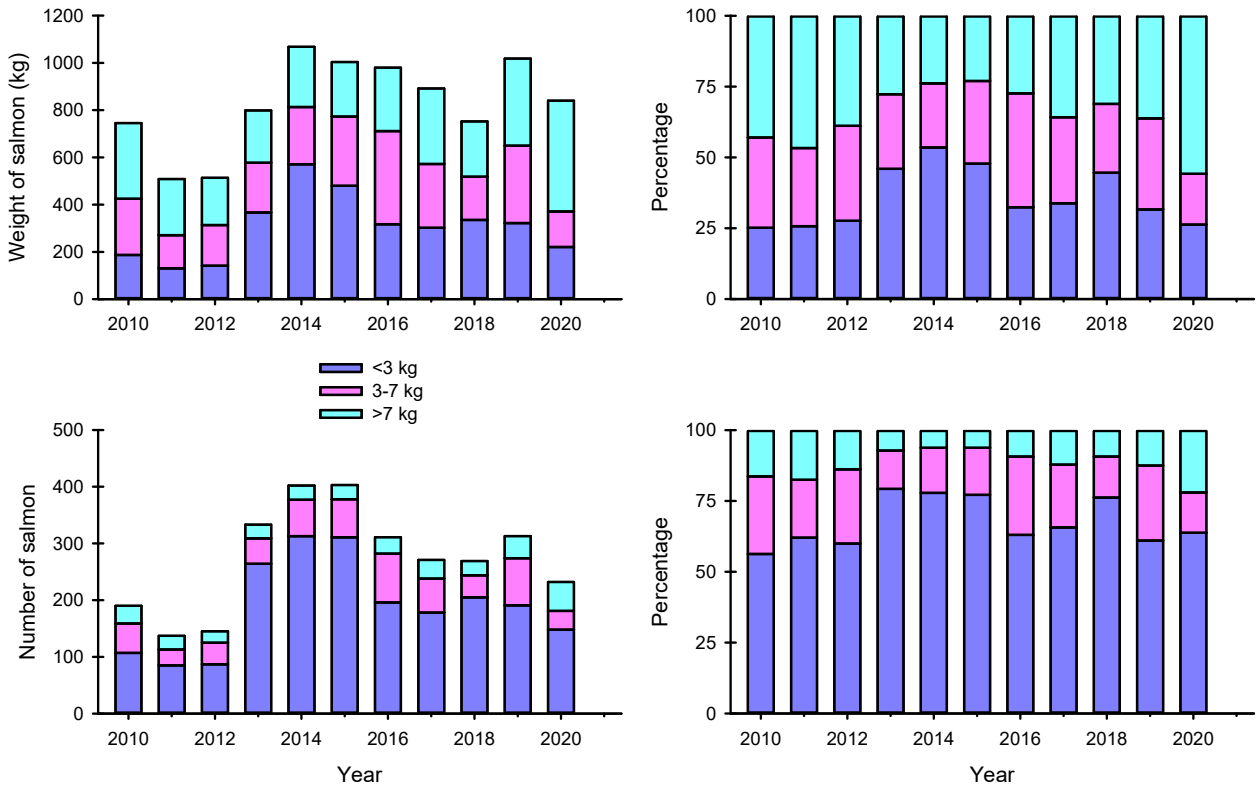


Figure 53. Annual numbers, weights and proportions of size groups in released salmon in the River Repparfjordelv. Source: SSB

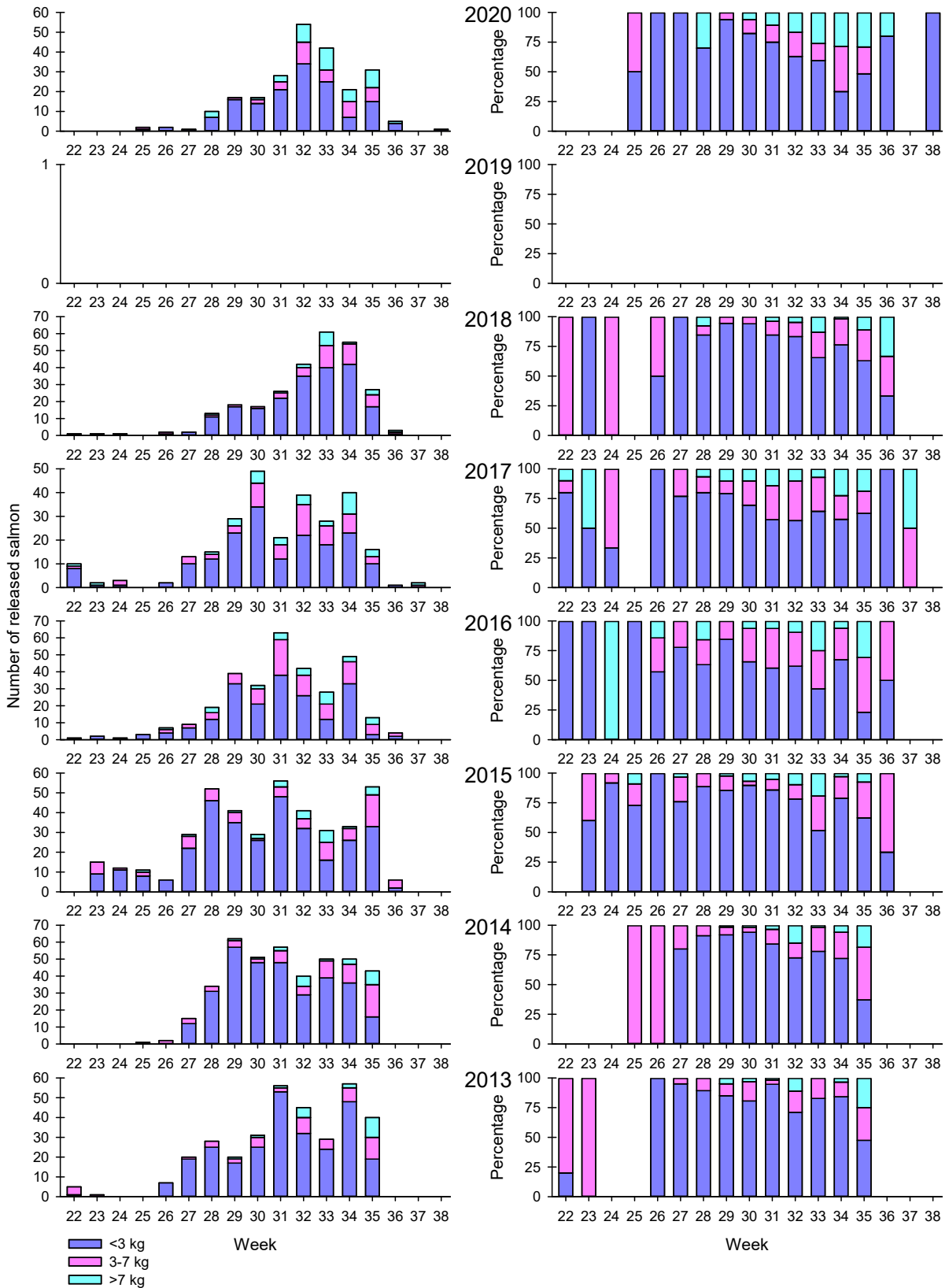


Figure 54. Weekly numbers and proportions of size groups in released salmon in the River Repparfjordelv. Source: SSB

29. Numbers and weights of salmon released annually in rod fishing in the River Altaelv

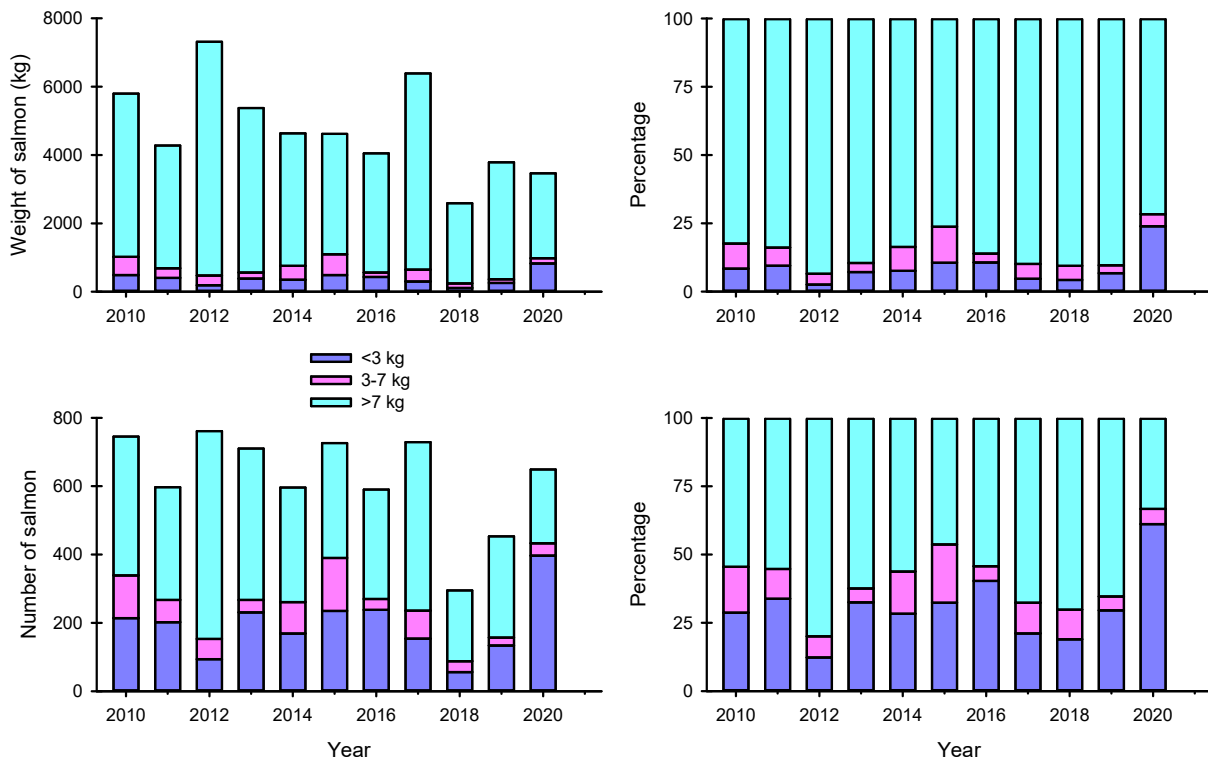


Figure 55. Annual numbers, weights and proportions of size groups in released salmon in the River Altaelv. Source: SSB

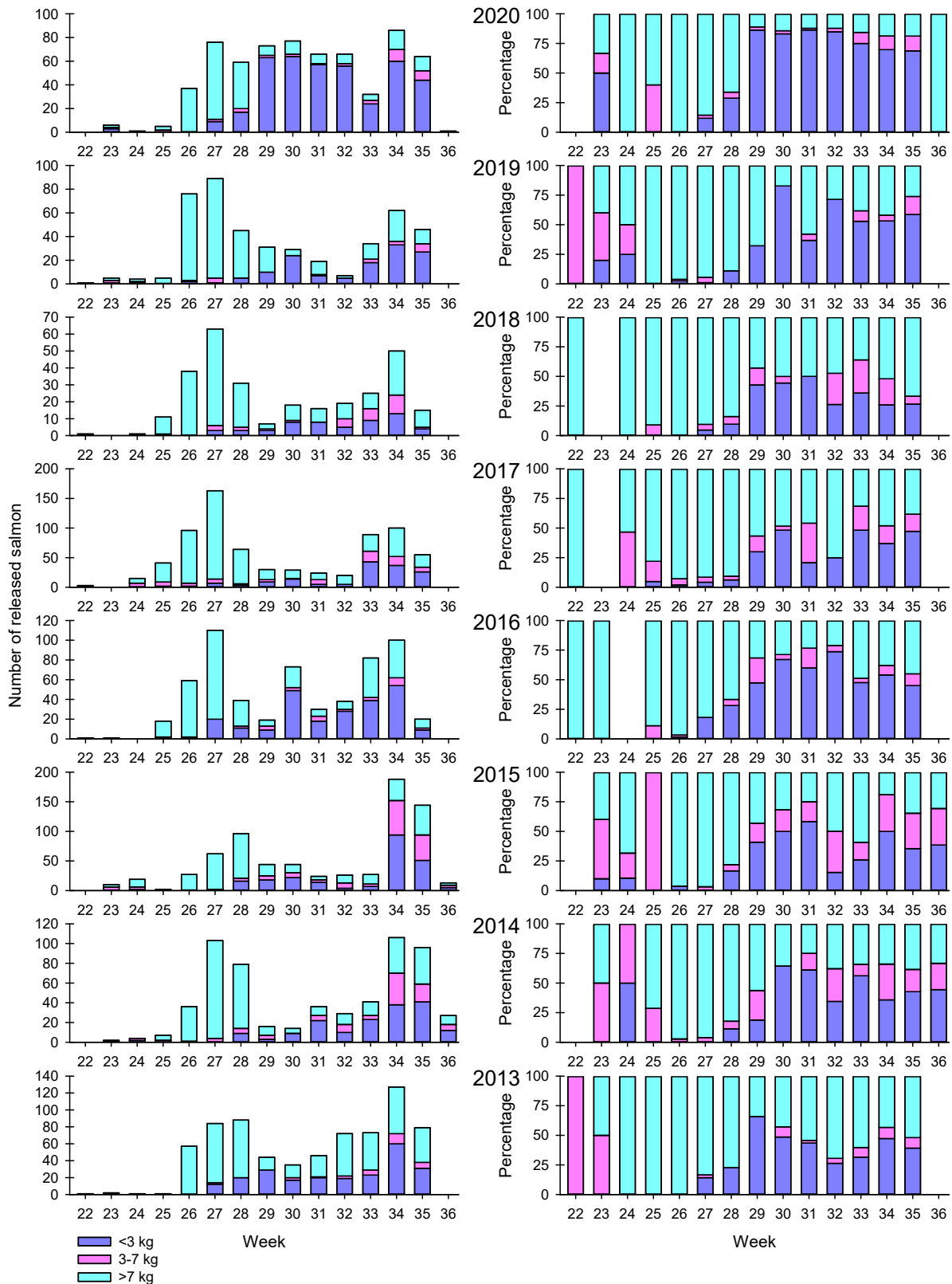


Figure 56. Weekly numbers and proportions of size groups in released salmon in the River Altaelv. Source: SSB

30. Numbers and weights of salmon released annually in rod fishing in the River Reisaelv

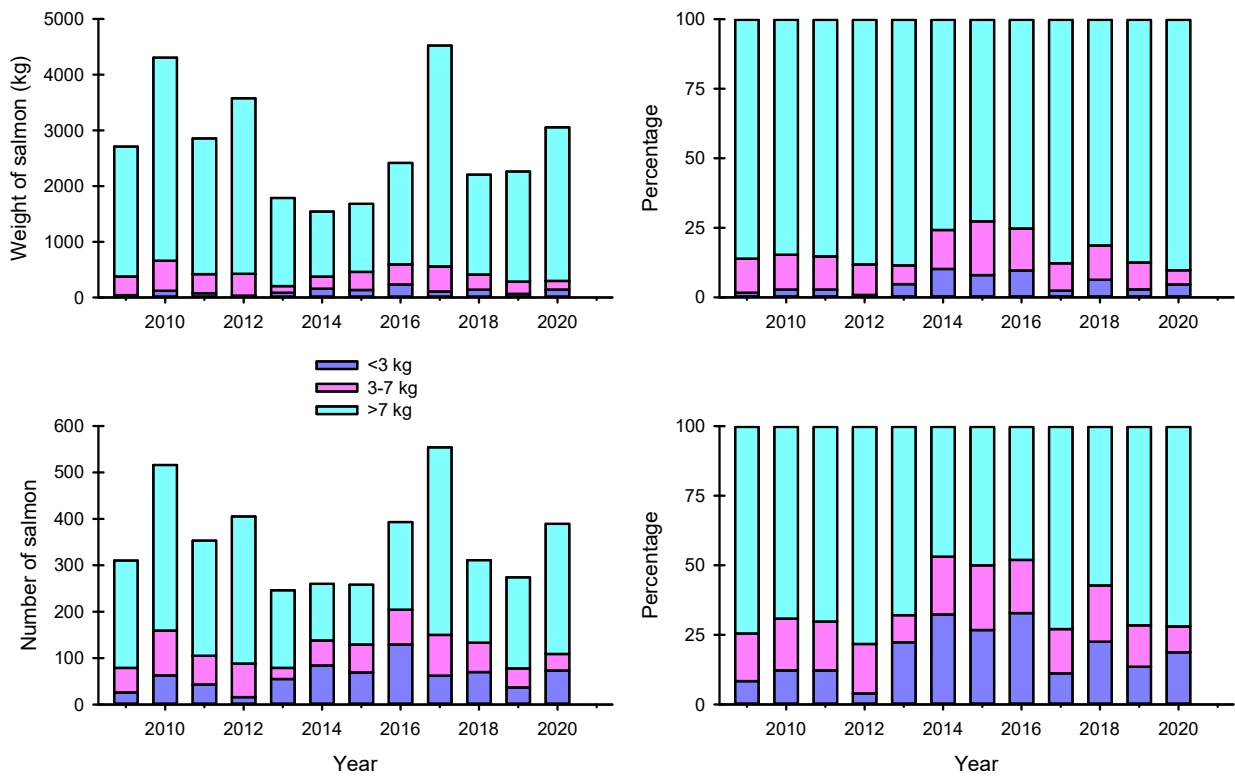


Figure 57. Annual numbers, weights and proportions of size groups in released salmon in the River Reisaelv. Source: SSB

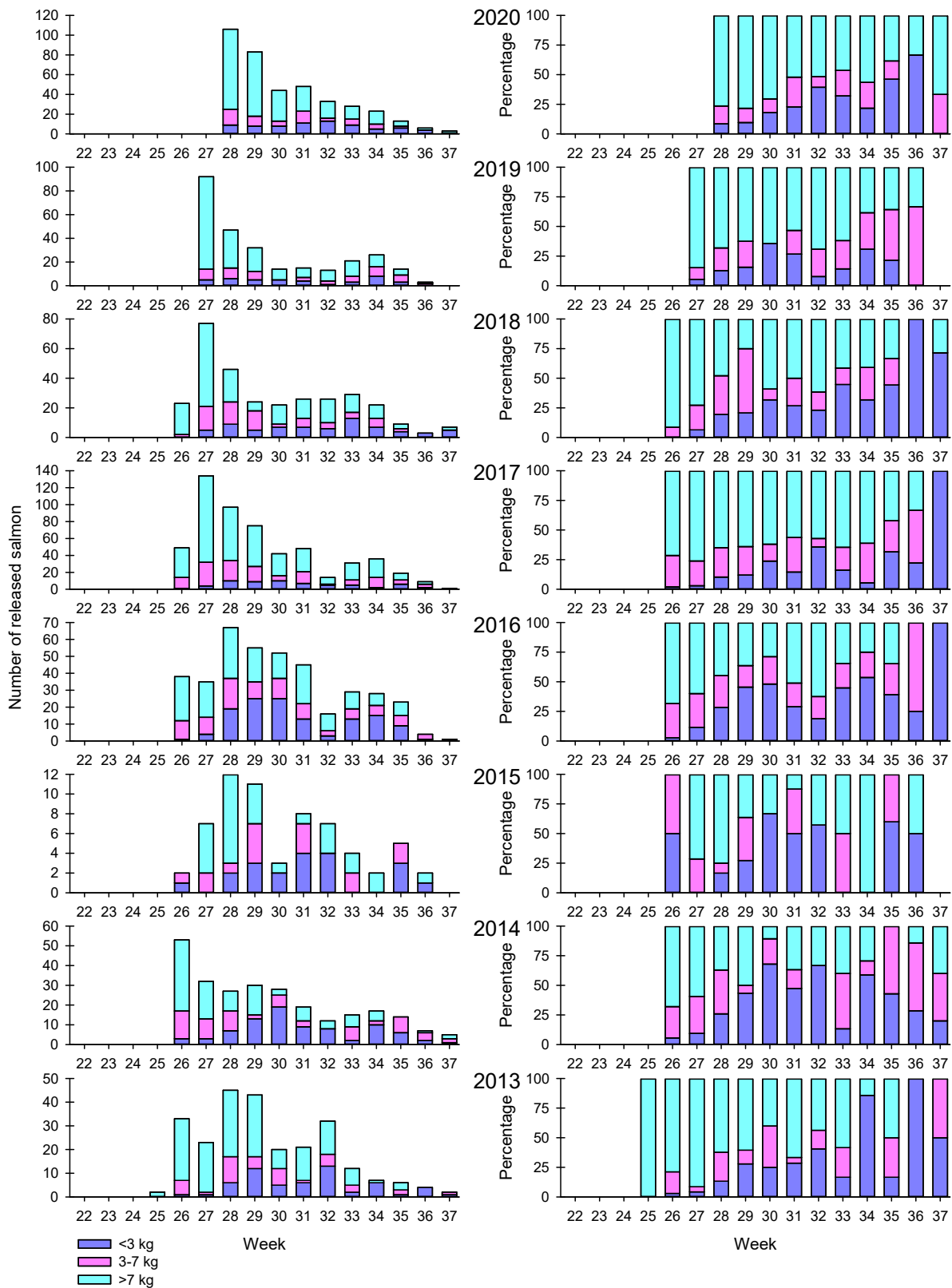


Figure 58. Weekly numbers and proportions of size groups in released salmon in the River Reisaelv. Source: SSB

31. Numbers and weights of salmon released annually in rod fishing in the River Nordkjøselv

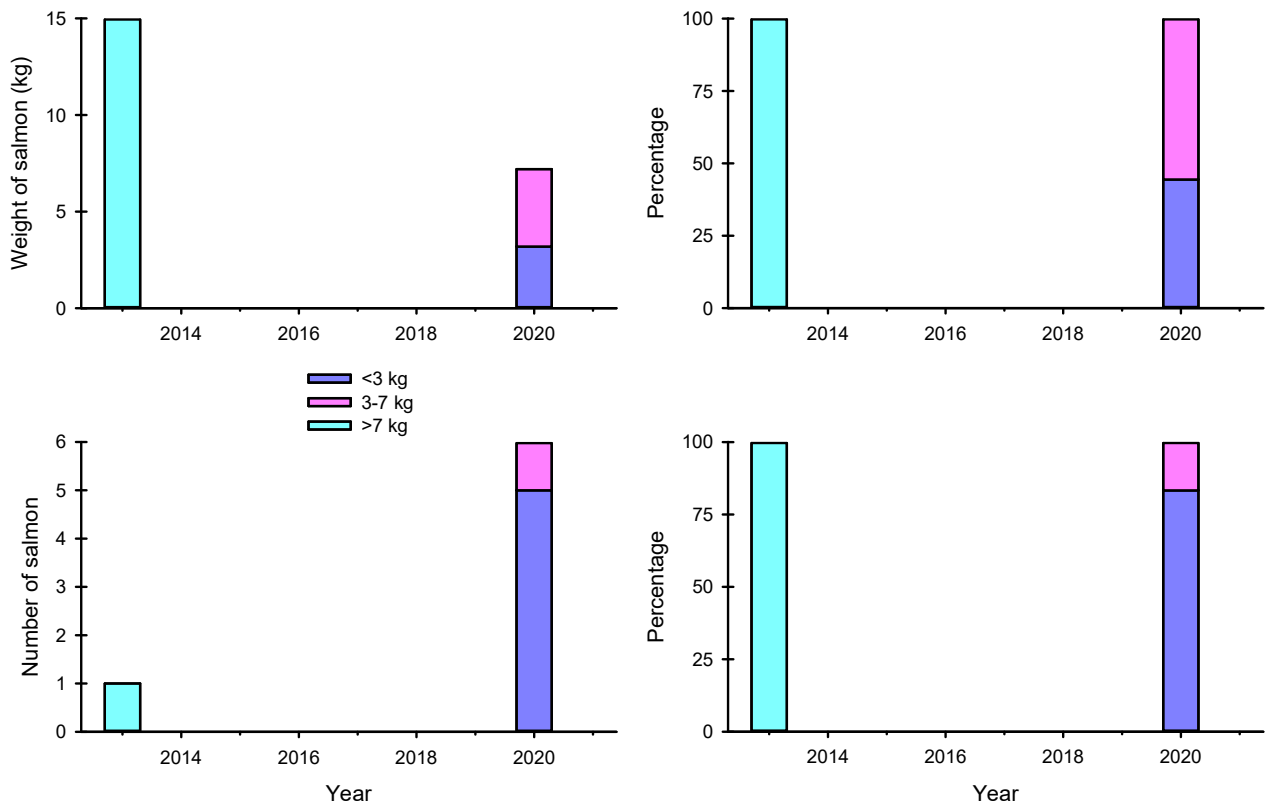


Figure 59. Annual numbers, weights and proportions of size groups in released salmon in the River Nordkjøselv. Source: SSB

32. Numbers and weights of salmon released annually in rod fishing in the River Målselv

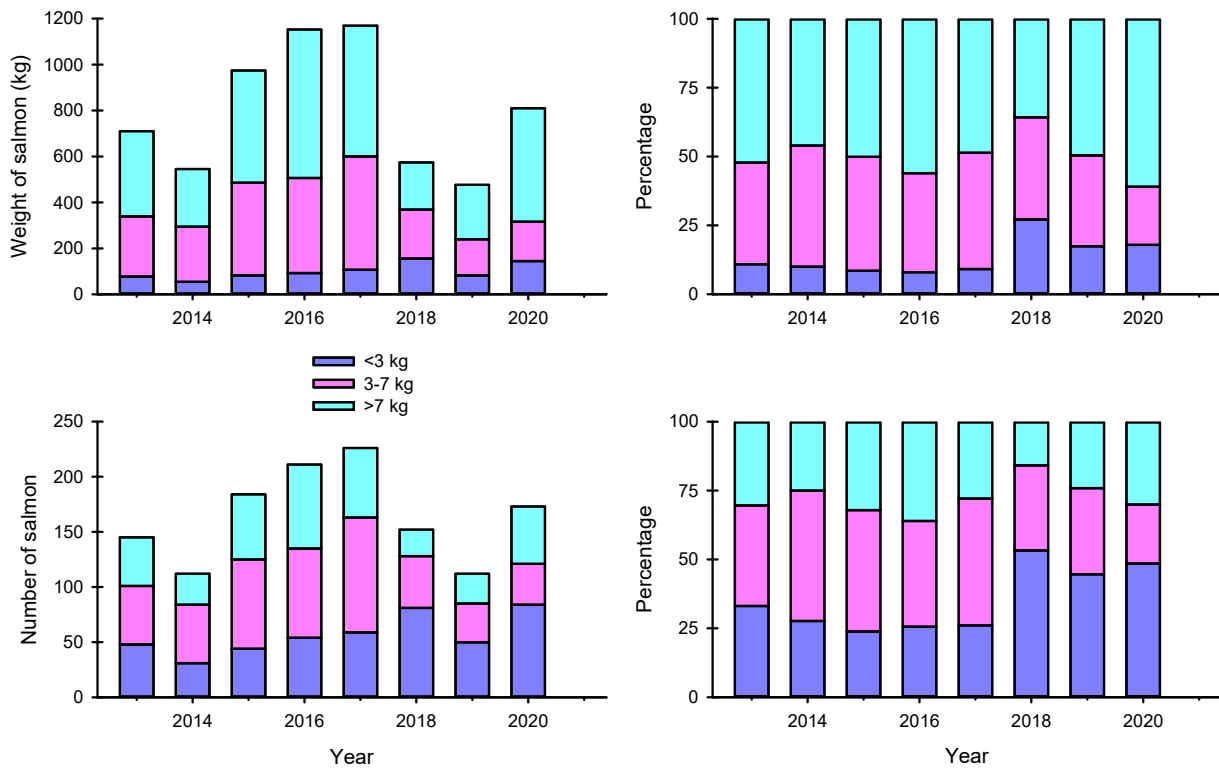


Figure 60. Annual numbers, weights, and proportions of released salmon in the River Målselv. Source: SSB

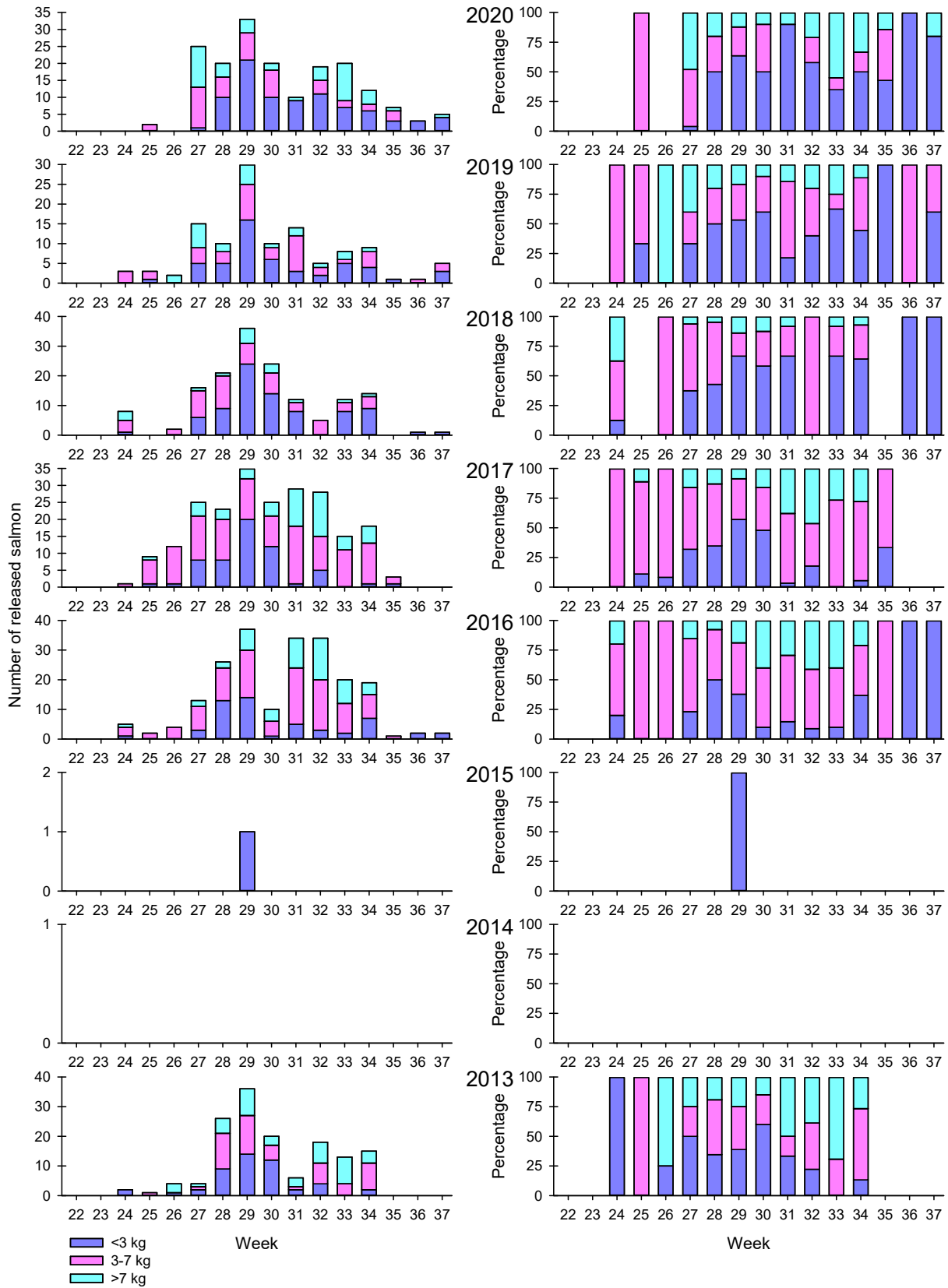


Figure 61. Weekly numbers and proportions of size groups in released salmon in the River Målselv. Source: SSB

33. Numbers and weights of salmon released annually in rod fishing in the River Lysbotnelv

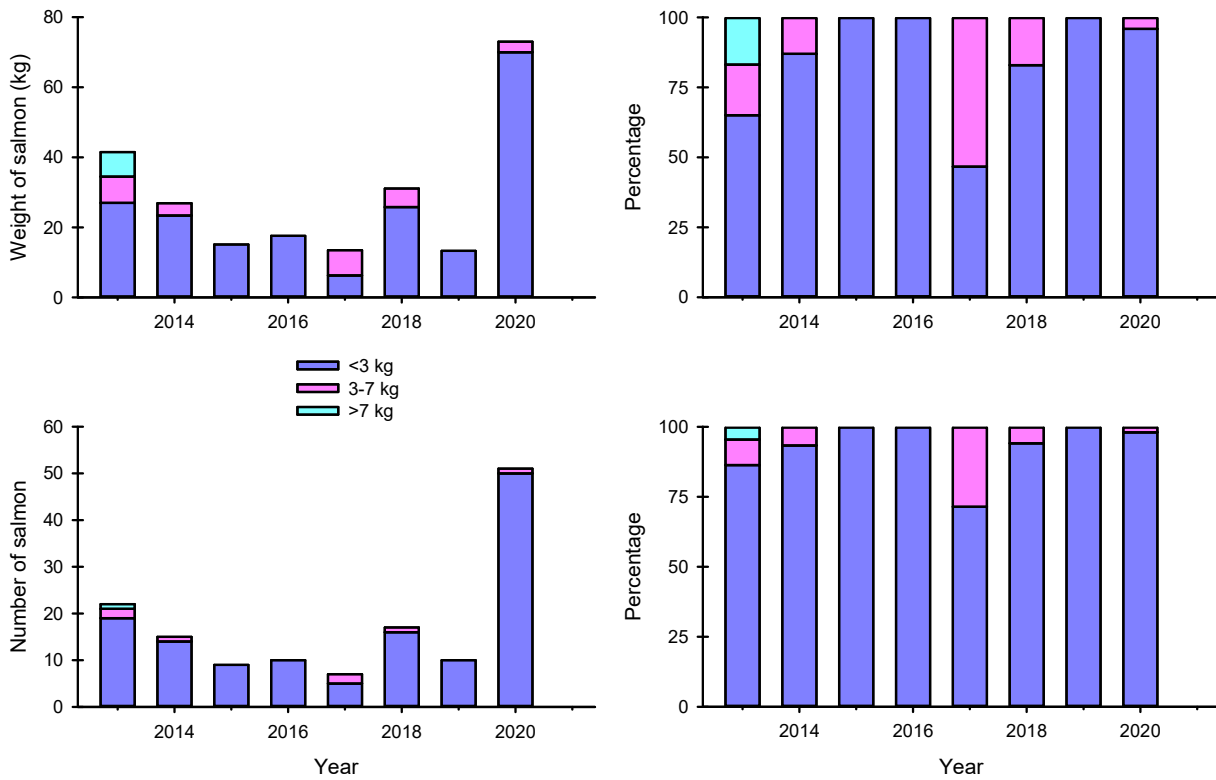


Figure 62. Annual numbers, weights and proportions of size groups in released salmon in the River Lysbotnelv. Source: SSB

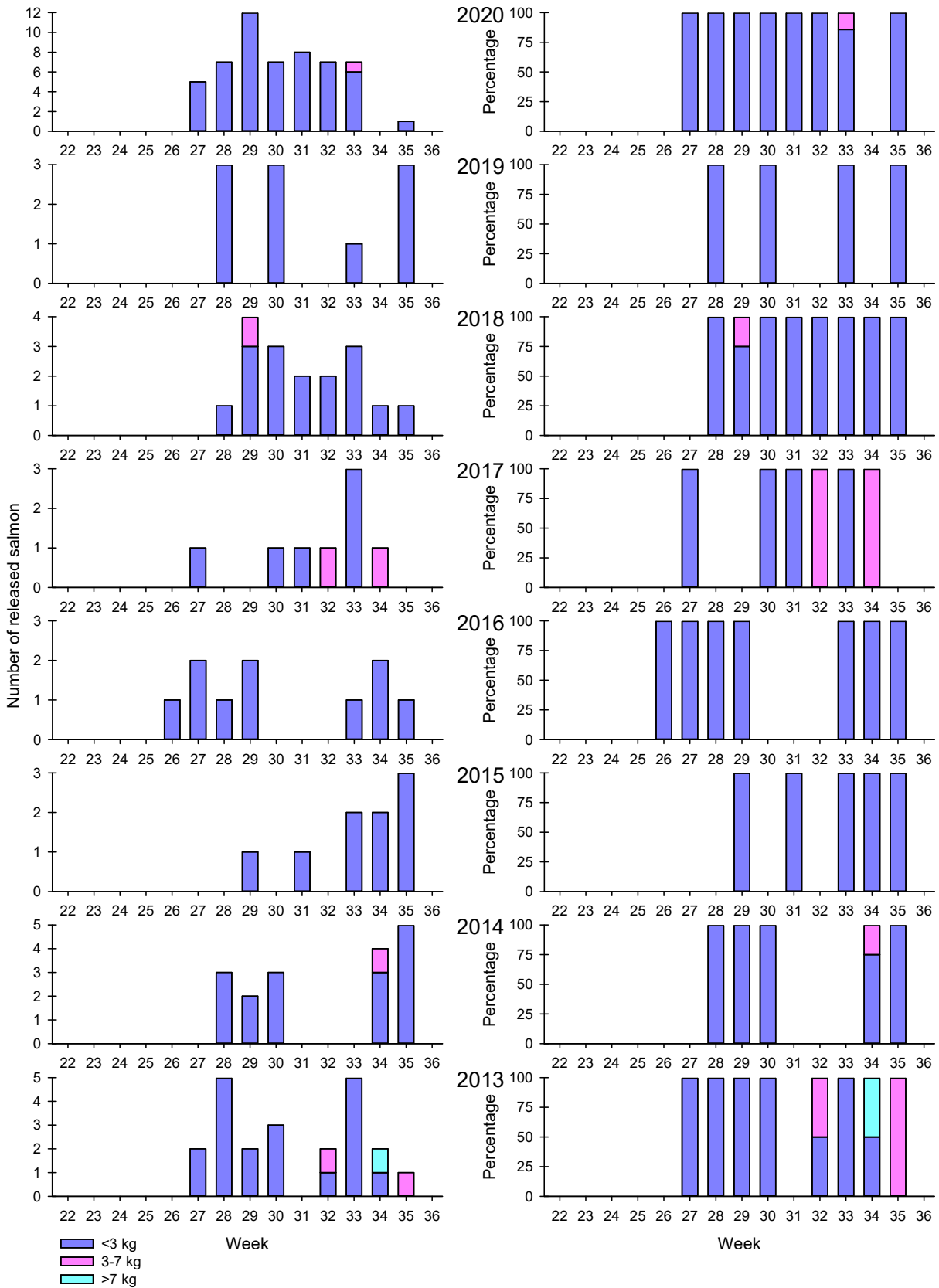


Figure 63. Weekly numbers and proportions of size groups in released salmon in the River Lysbotnelv. Source: SSB

34. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Gense Jakobselv and Karpelv

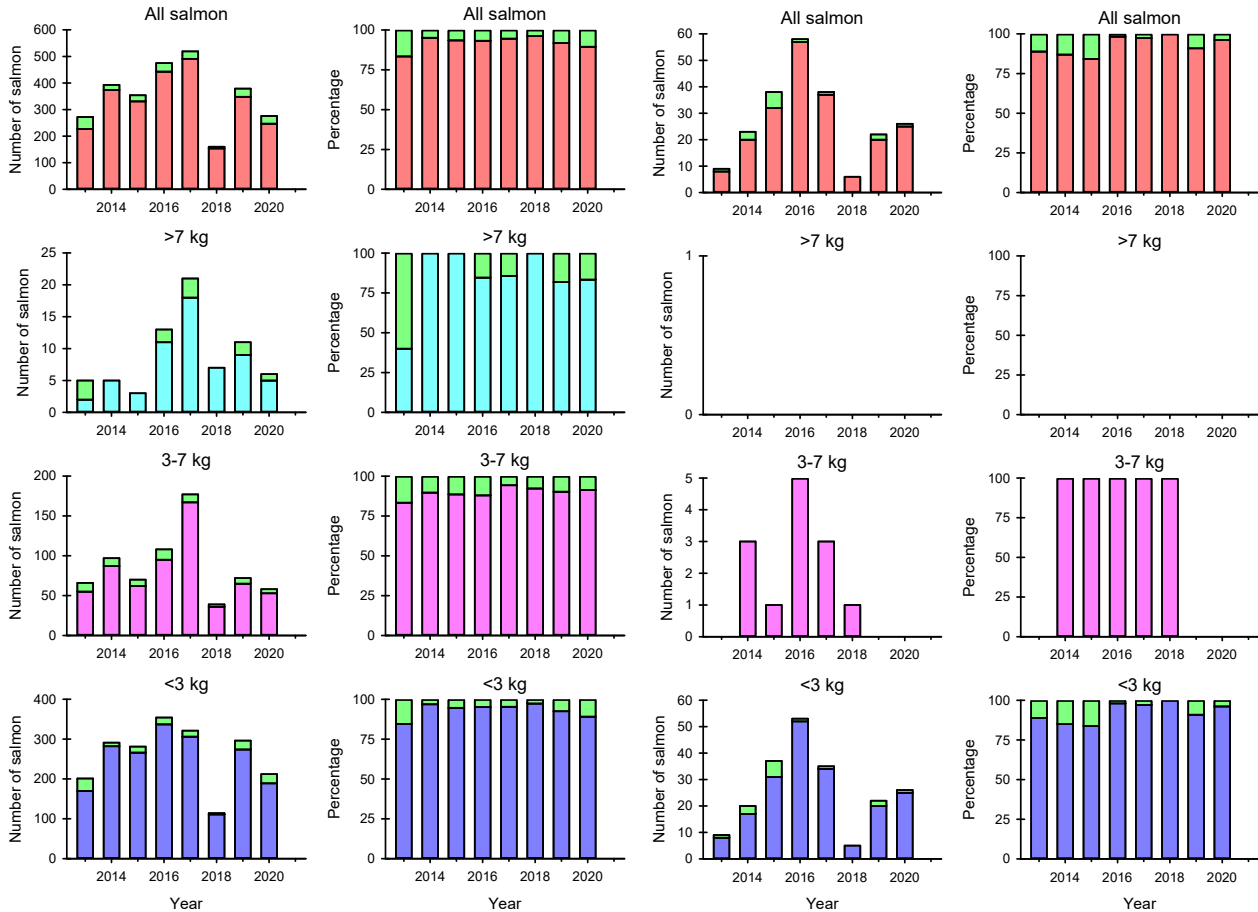


Figure 64. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Gense Jakobselv (on the left) and Karpelv (on the right). Source: SSB

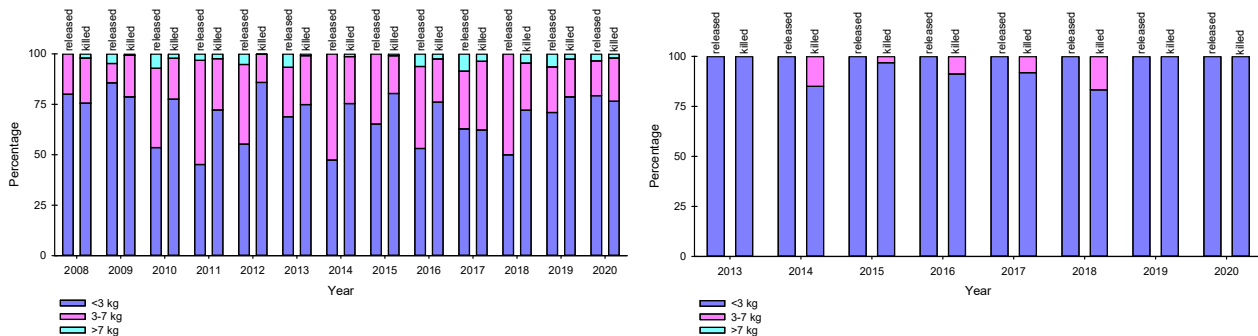


Figure 65. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Gense Jakobselv (on the left) and Karpelv (on the right). Source: SSB

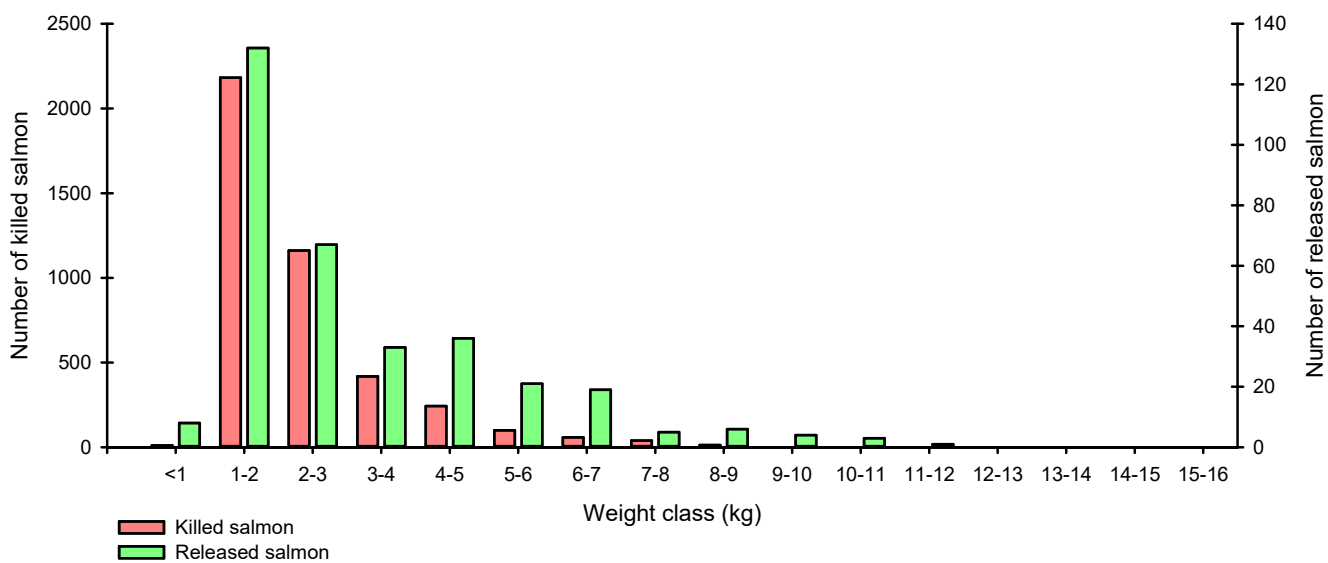


Figure 66. Size distributions of released and killed salmon between weight classes in the River Grense Jakobselv (years 2008-2020 combined). Source: SSB

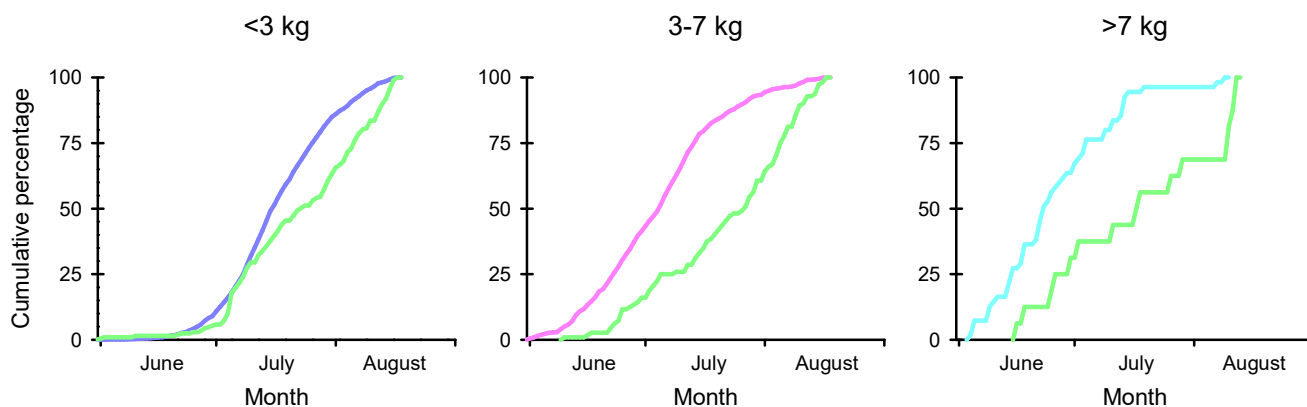


Figure 67. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Grense Jakobselv (years 2013-2020 combined). Source: SSB

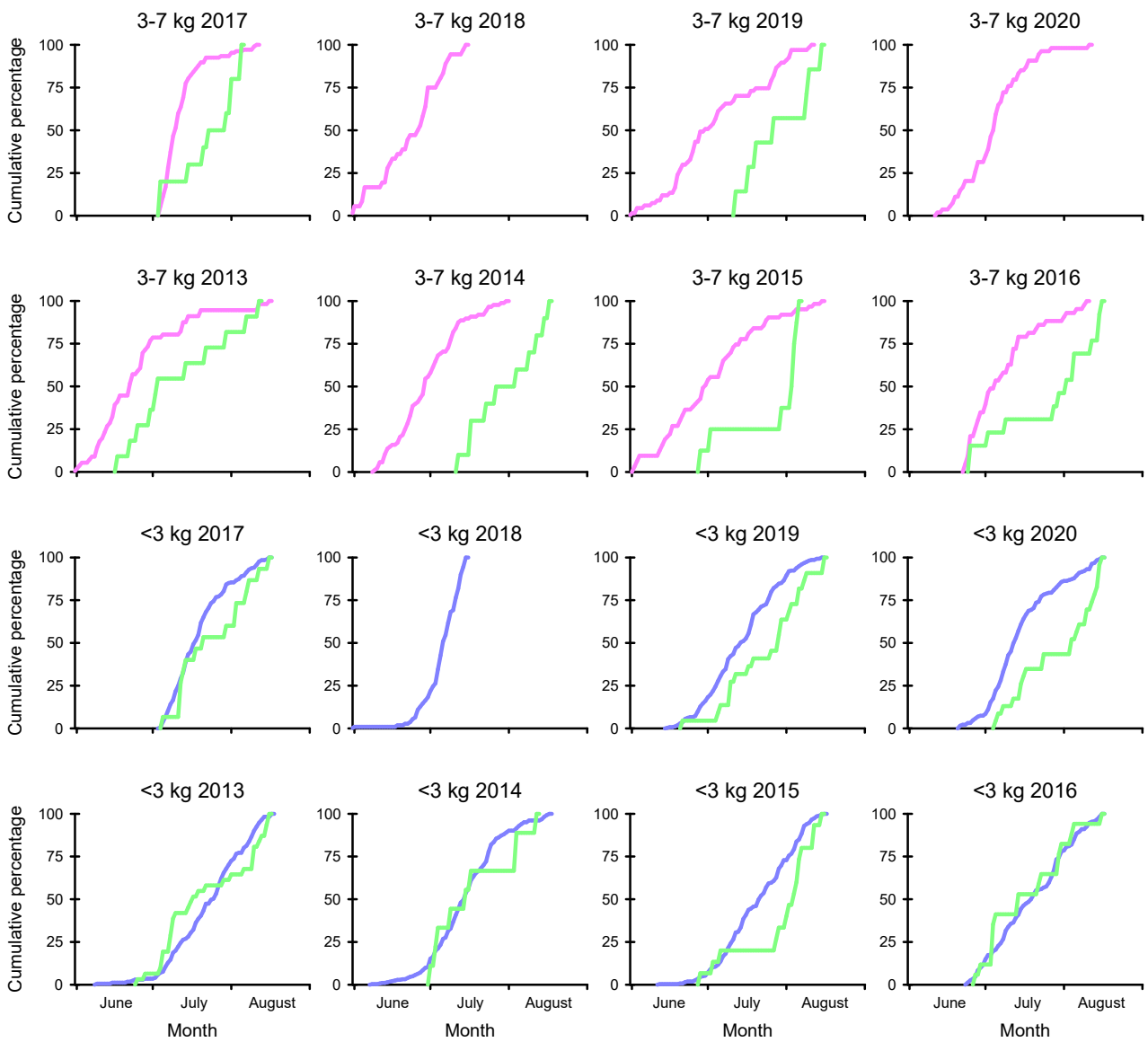


Figure 68. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Grense Jakobselv in the years 2013-2020. Source: SSB

35. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Sandneselv and Munkelv

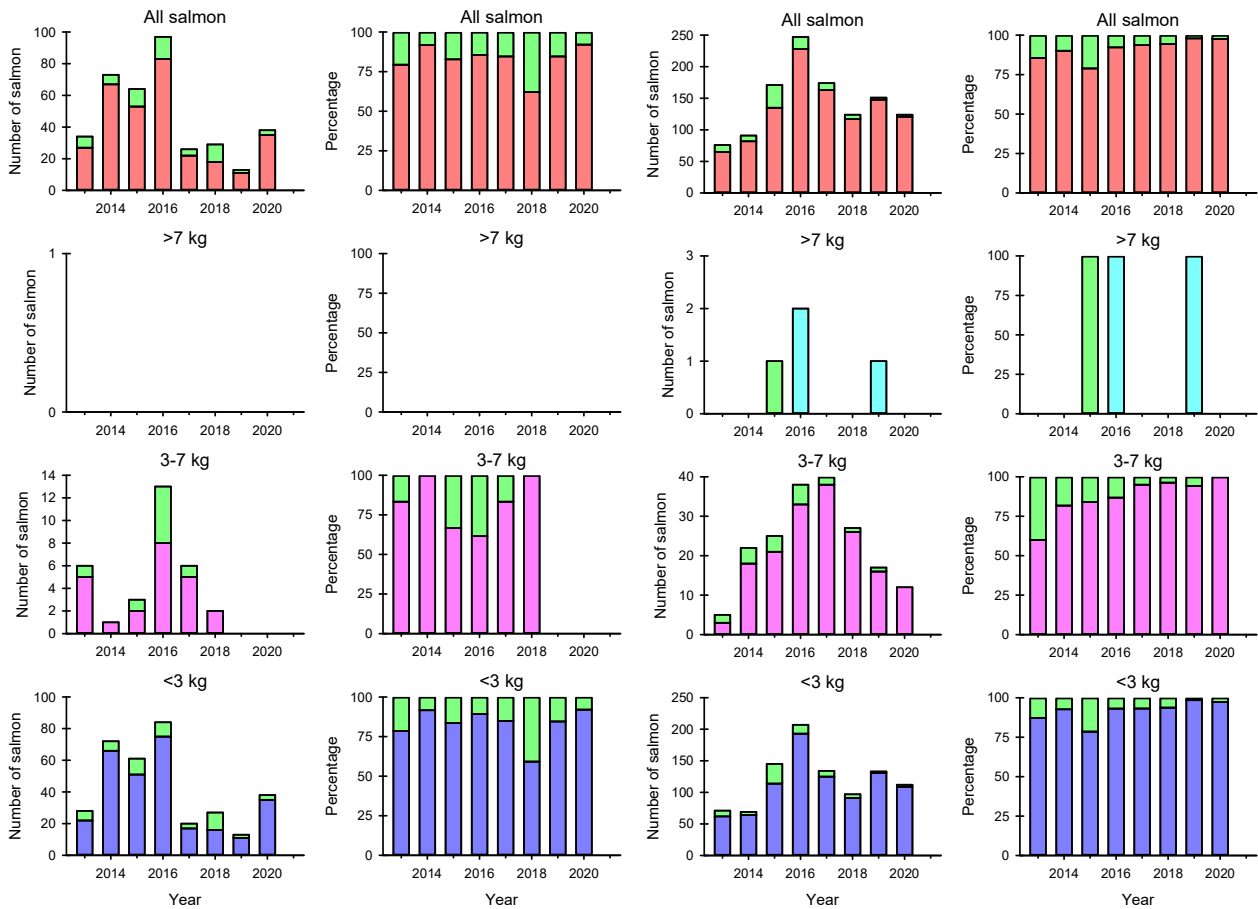


Figure 69 . Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Sandneselv (on the left) and Munkelv (on the right). Source: SSB

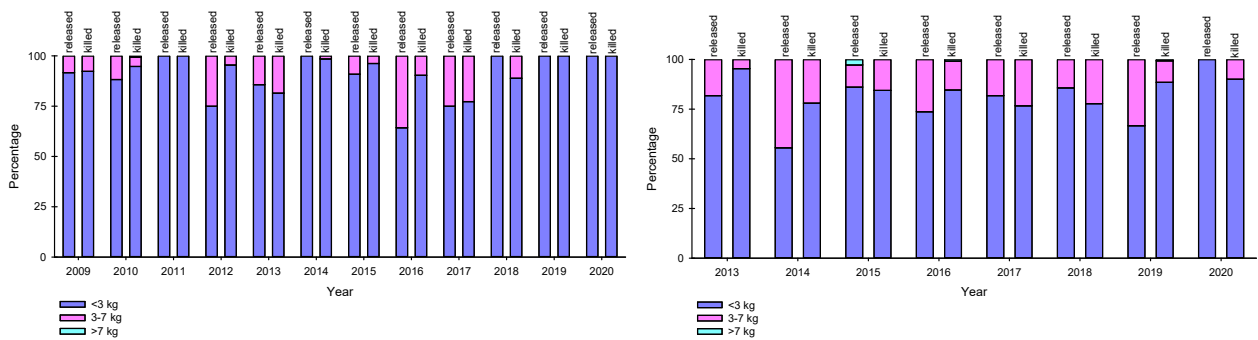


Figure 70. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Sandneselv (on the left) and Munkelv (on the right). Source: SSB

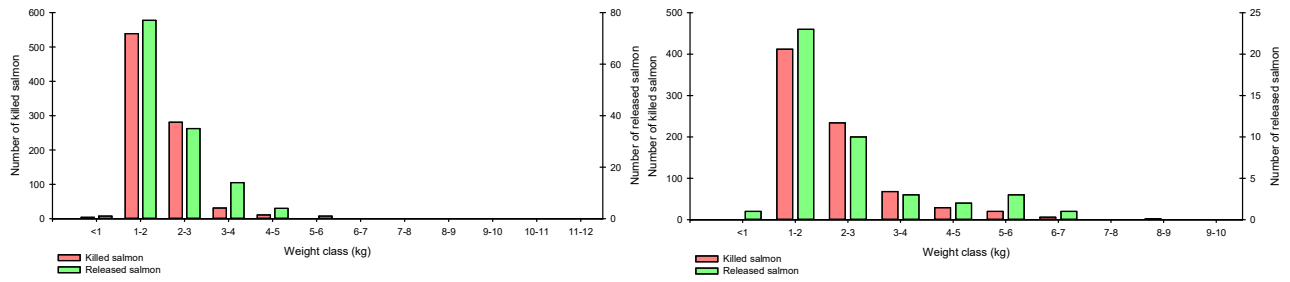


Figure 71. Size distributions of released and killed salmon between weight classes in the rivers Sandneselv (years 2009-2020 combined)(on the left) and Munkelv (years 2016-2020 combined)(on the right). Source: SSB

36. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Neidenelv (Norway) and Klokkerelv

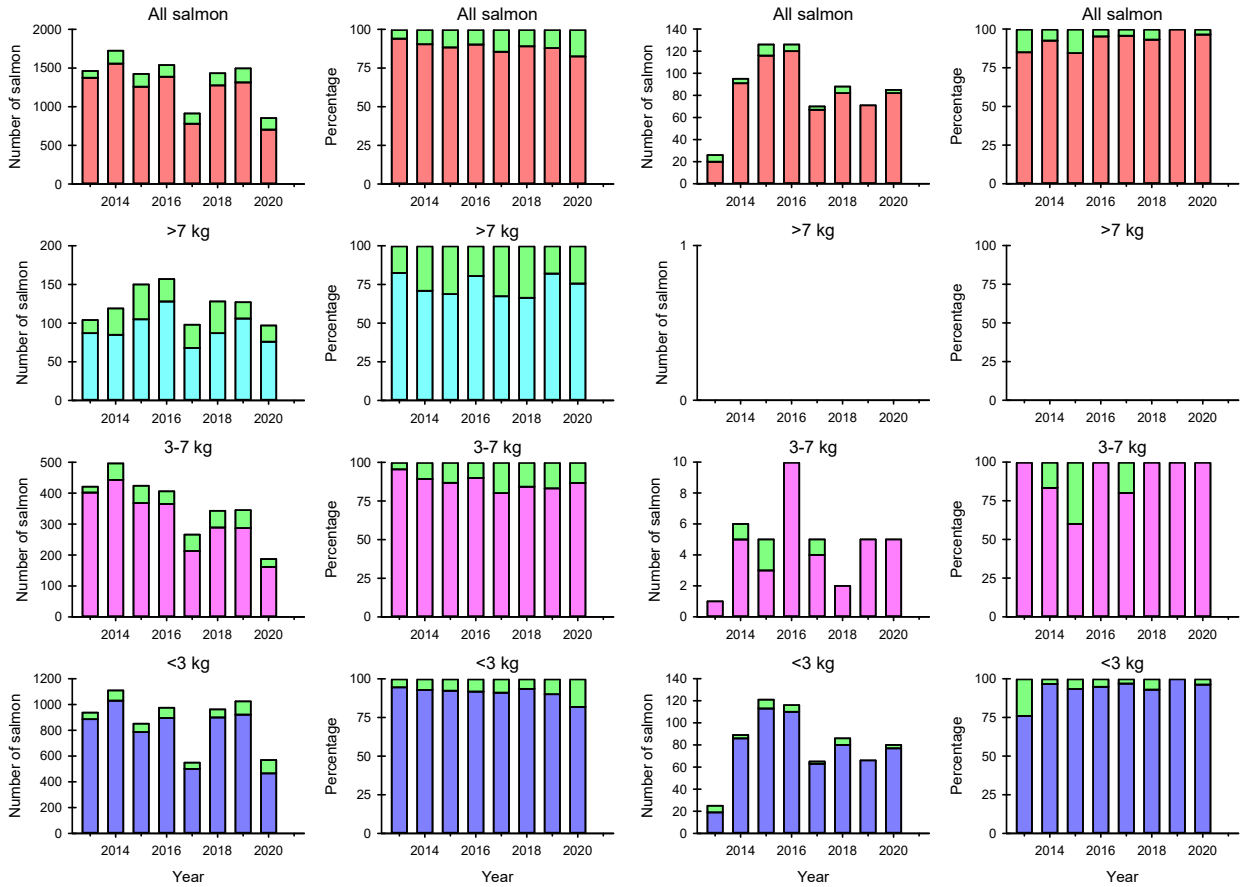


Figure 72. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Neidenelv (Norway) (on the left) and Klokkerelv (on the right). Source: SSB

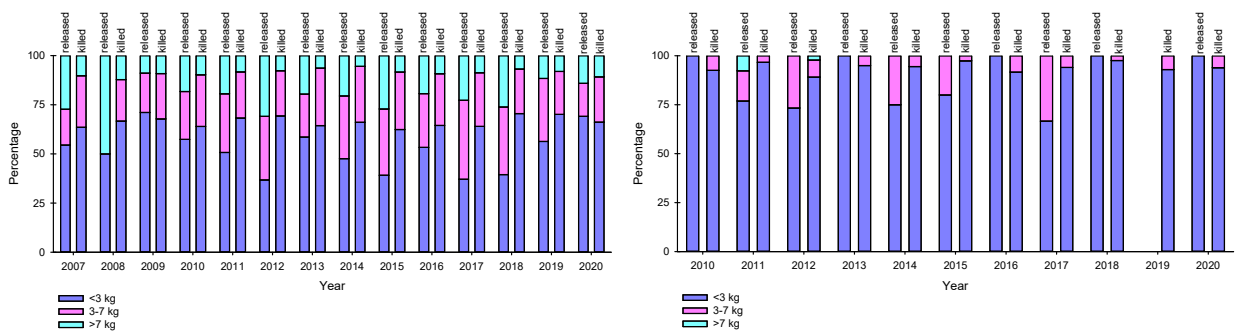


Figure 73. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Neidenelv (Norway) (on the left) and Klokkerelv (on the right). Source: SSB

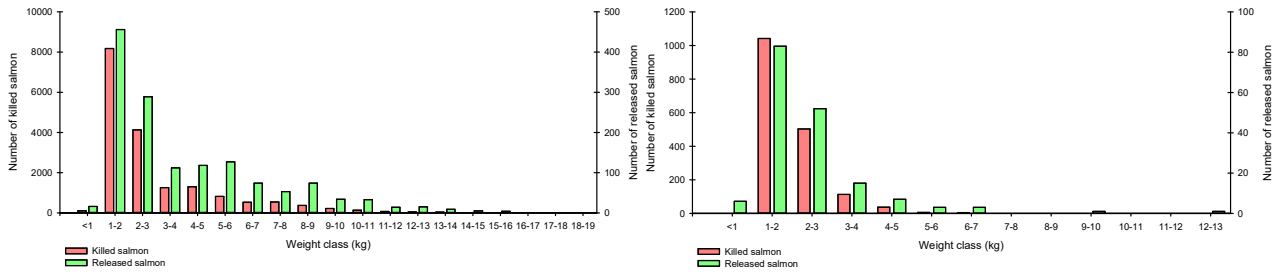


Figure 74. Size distributions of released and killed salmon between weight classes in the rivers Neidenelv (Norway) (years 2007-2020 combined) (on the left) and Klokkerelv (years 2010-2020 combined) (on the right). Source: SSB

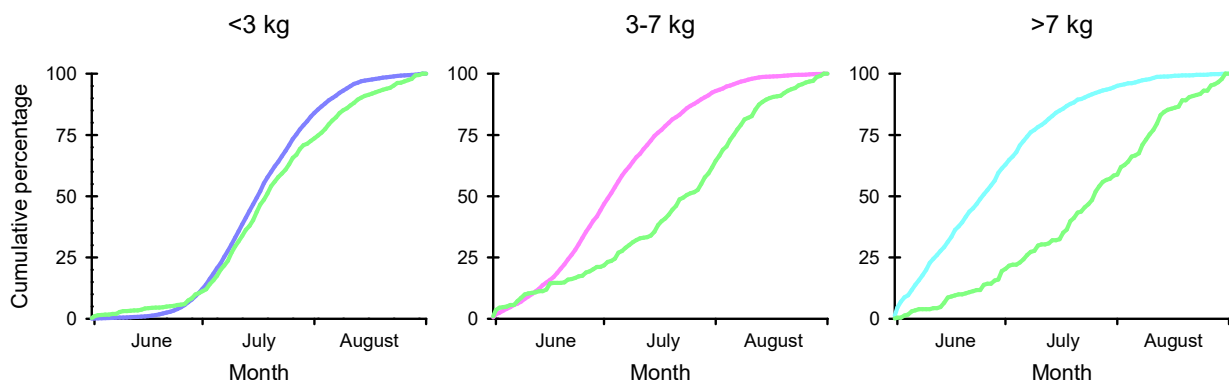


Figure 75. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Neidenelv (years 2013-2020 combined). Source: SSB

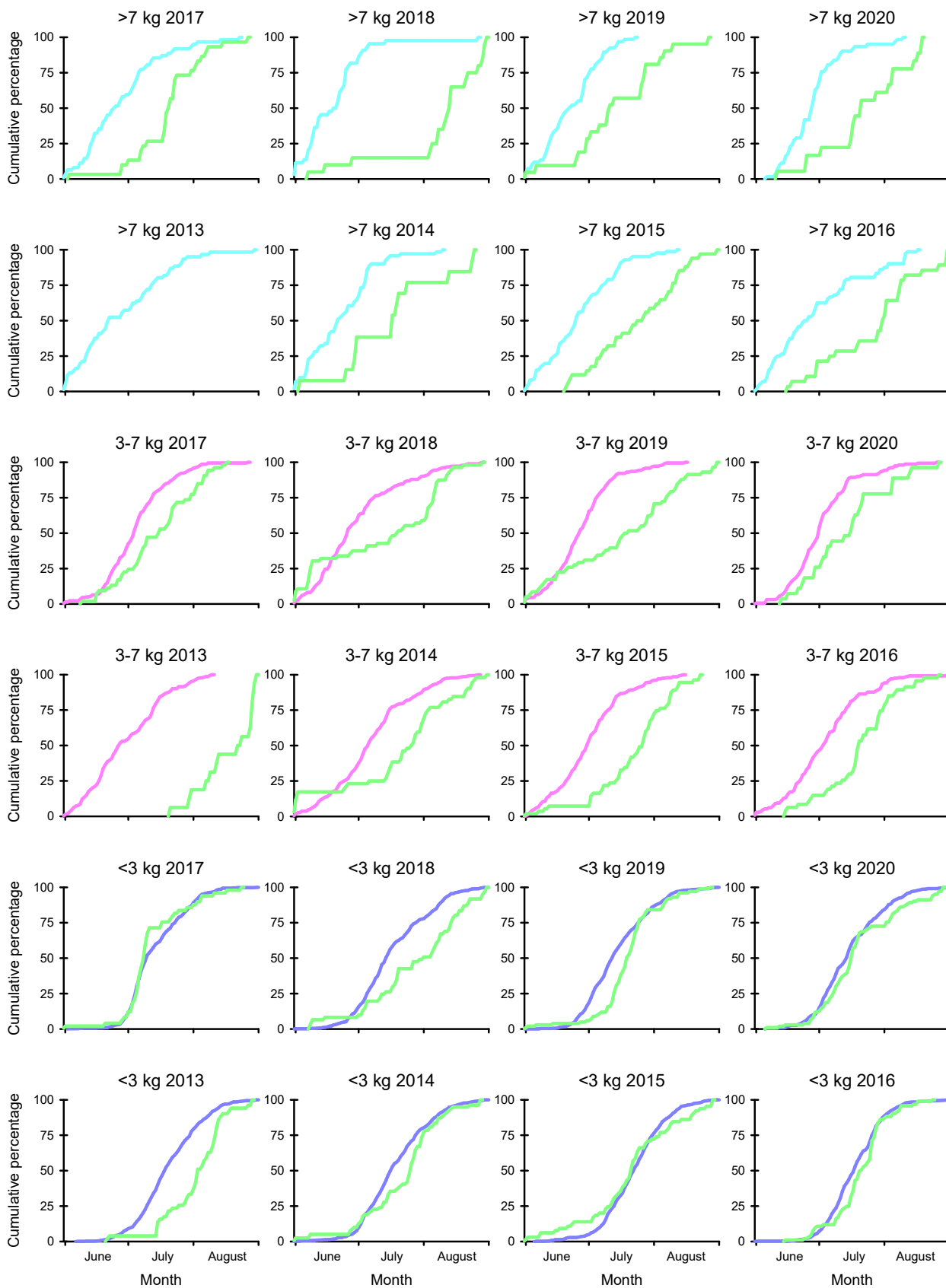


Figure 76. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Neidenelv in the years 2013-2020. Source: SSB

37. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Vesterelv and Bergebyelv

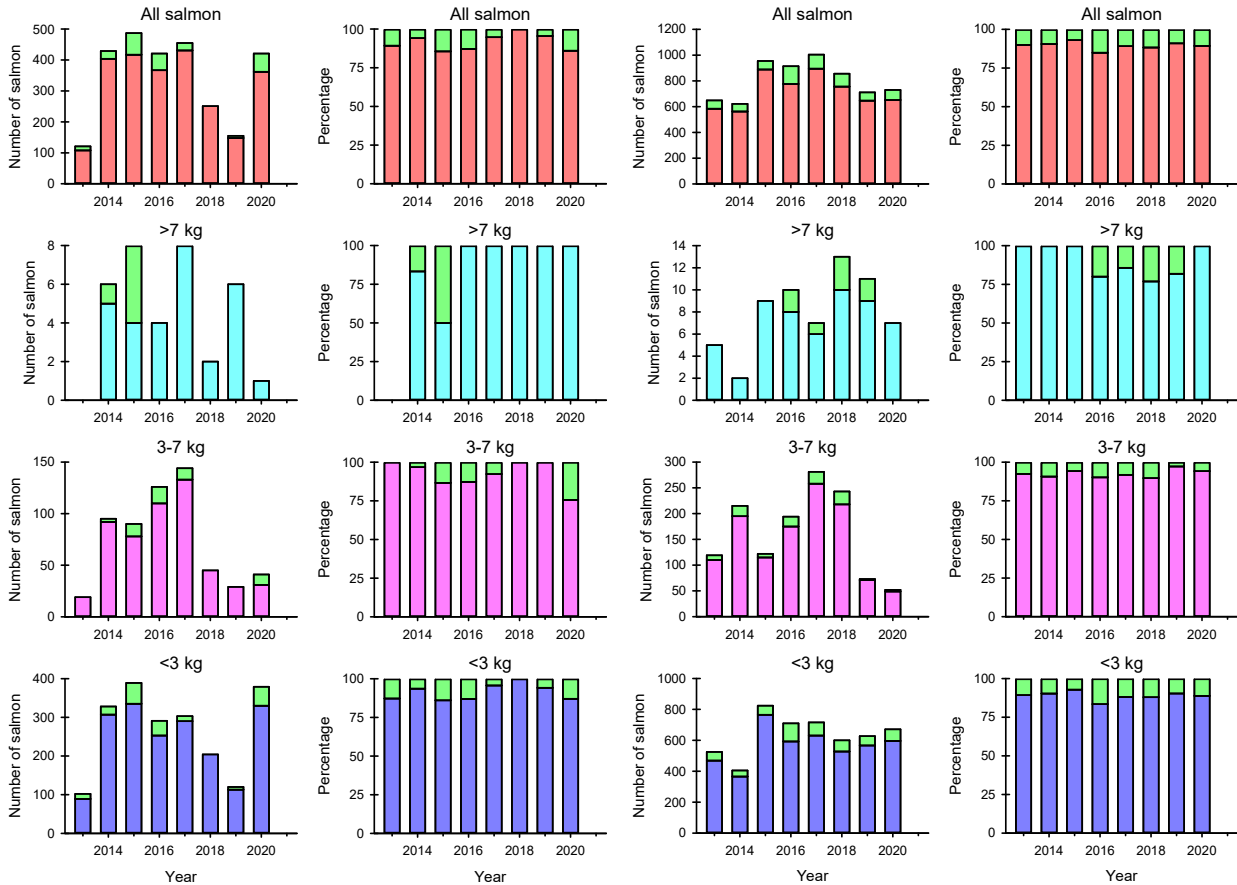


Figure 77. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Vesterelv (on the left) and Bergebyelv (on the right). Source: SSB

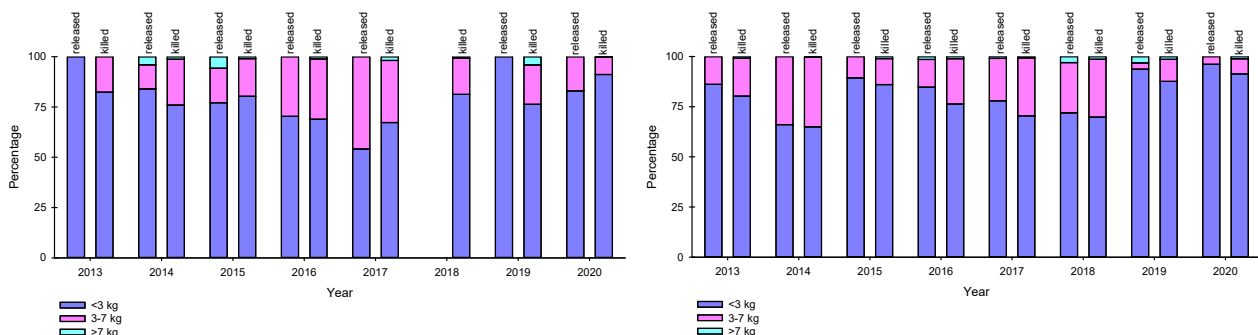


Figure 78. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Vesterelv (on the left) and Bergebyelv (on the right). Source: SSB

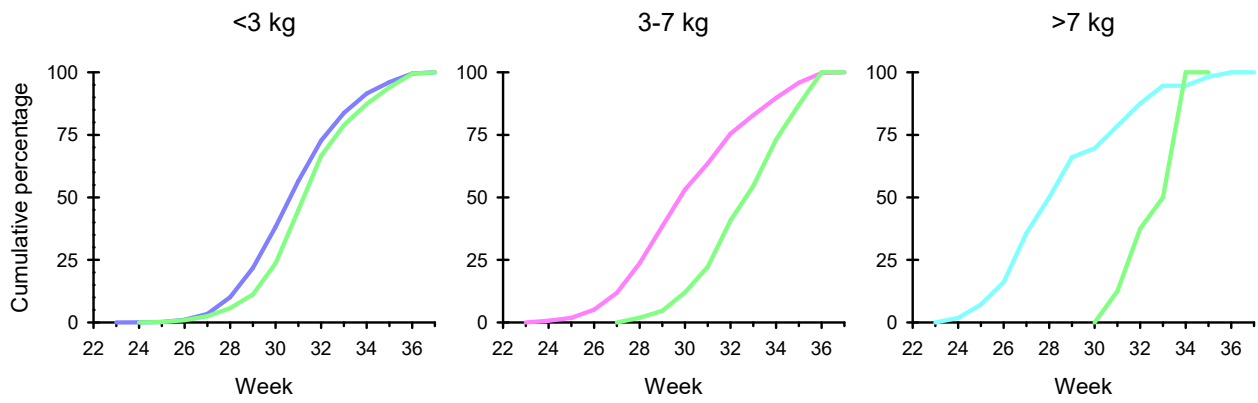


Figure 79. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Bergebyelv (years 2013-2020 combined). Source: SSB

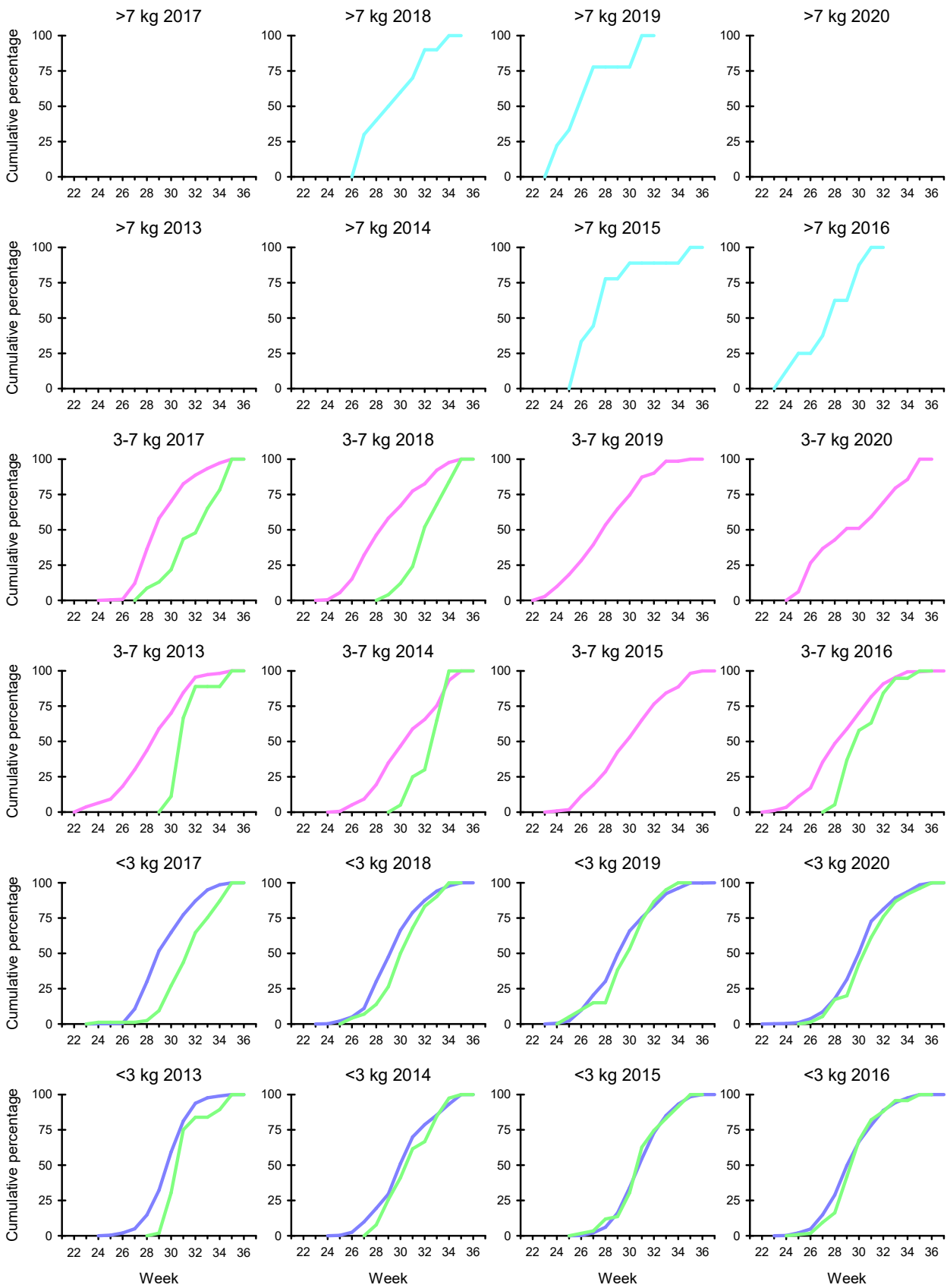


Figure 80. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Bergebyelv in the years 2013-2020. Source: SSB

38. Numbers, proportions, and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Vestre Jakobselv and Skallelv

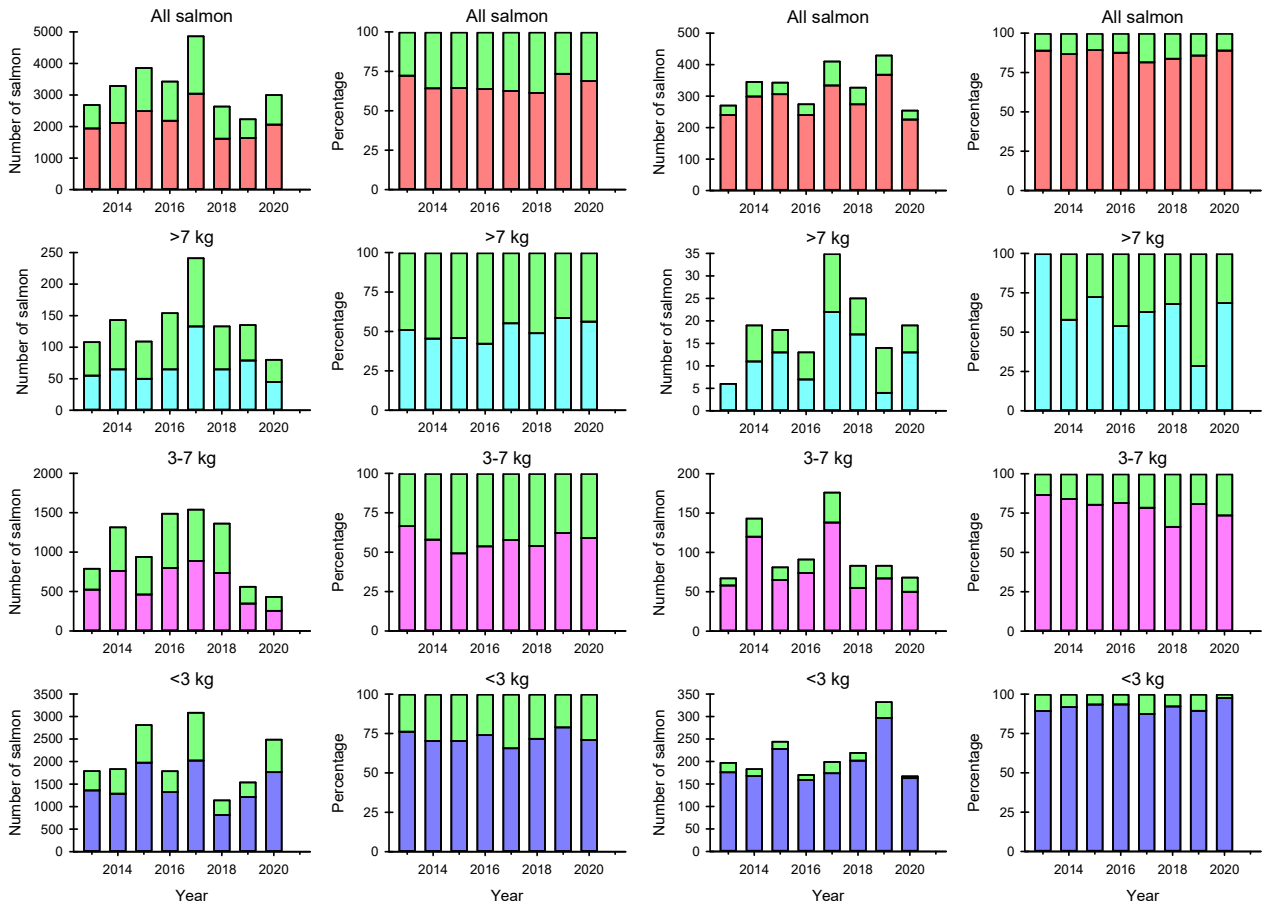


Figure 81. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Vestre Jakobselv (on the left) and Skallelv (on the right). Source: SSB

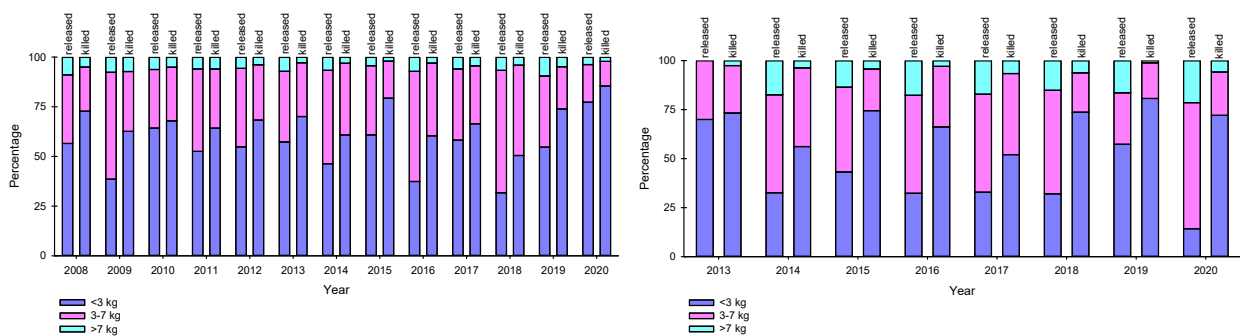


Figure 82. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Vestre Jakobselv (on the left) and Skallelv (on the right). Source: SSB

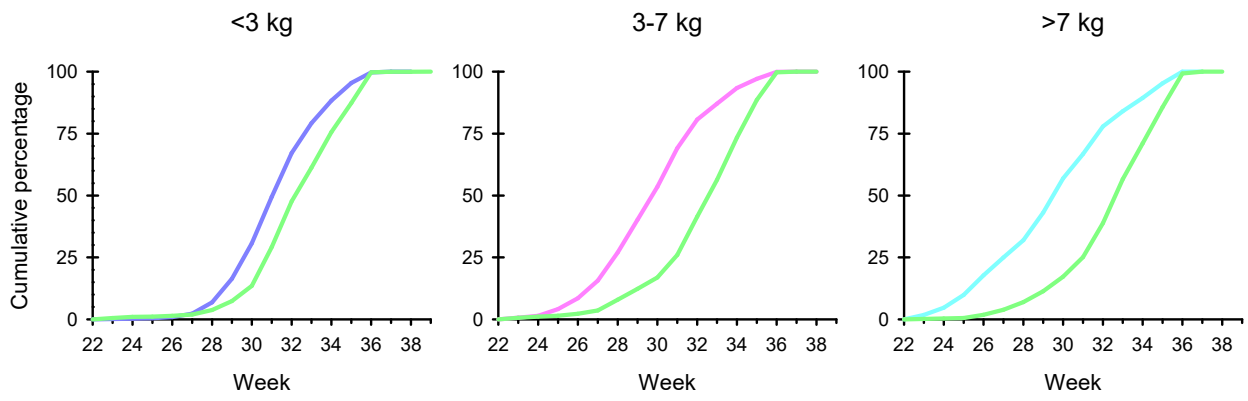


Figure 83. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Vestre Jakobselv (years 2013-2020 combined). Source: SSB

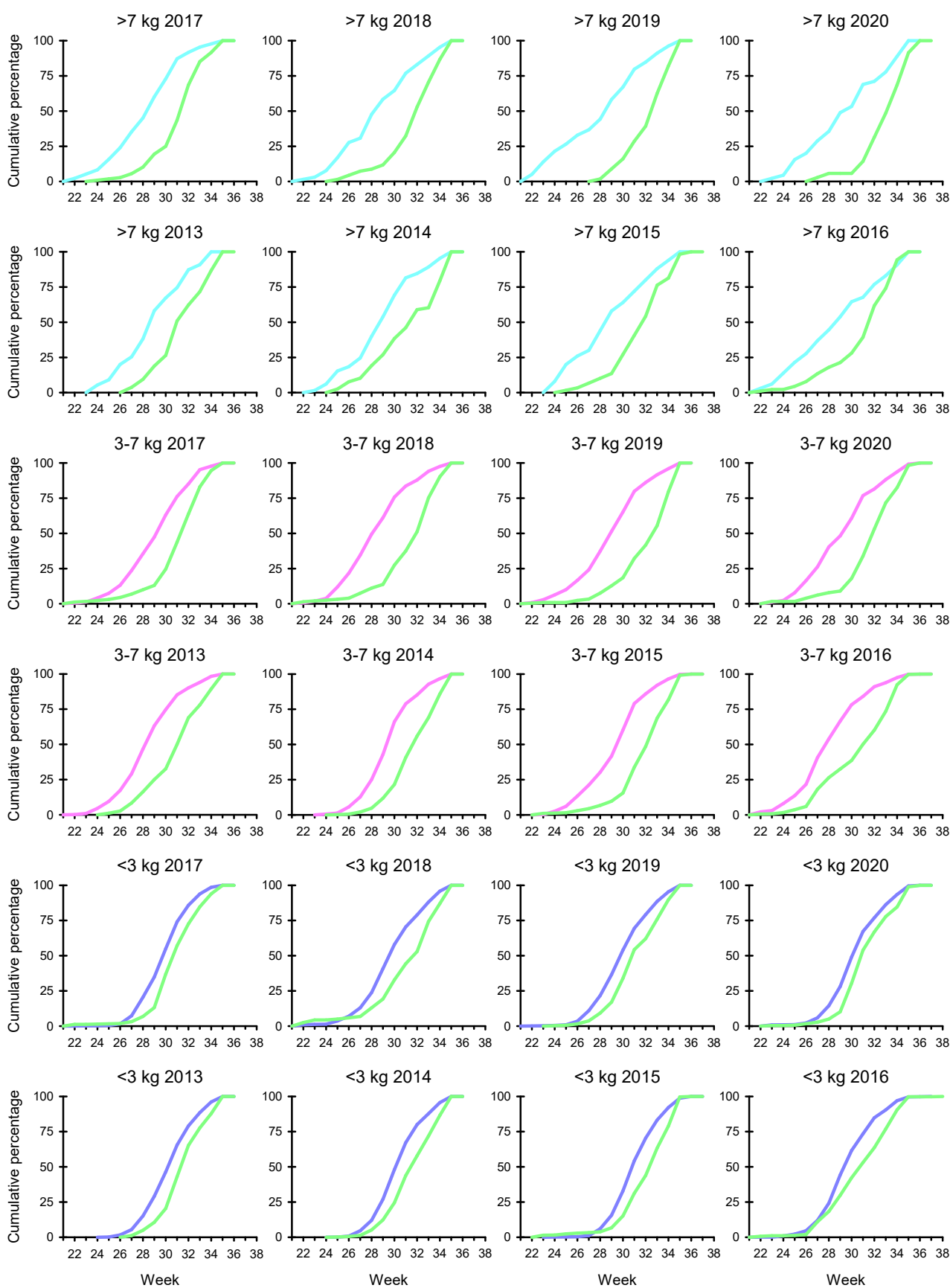


Figure 84. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Vestre Jakobselv in the years 2013-2020. Source: SSB

39. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Komagelv and Sandfjordelv (Båtsfjord)

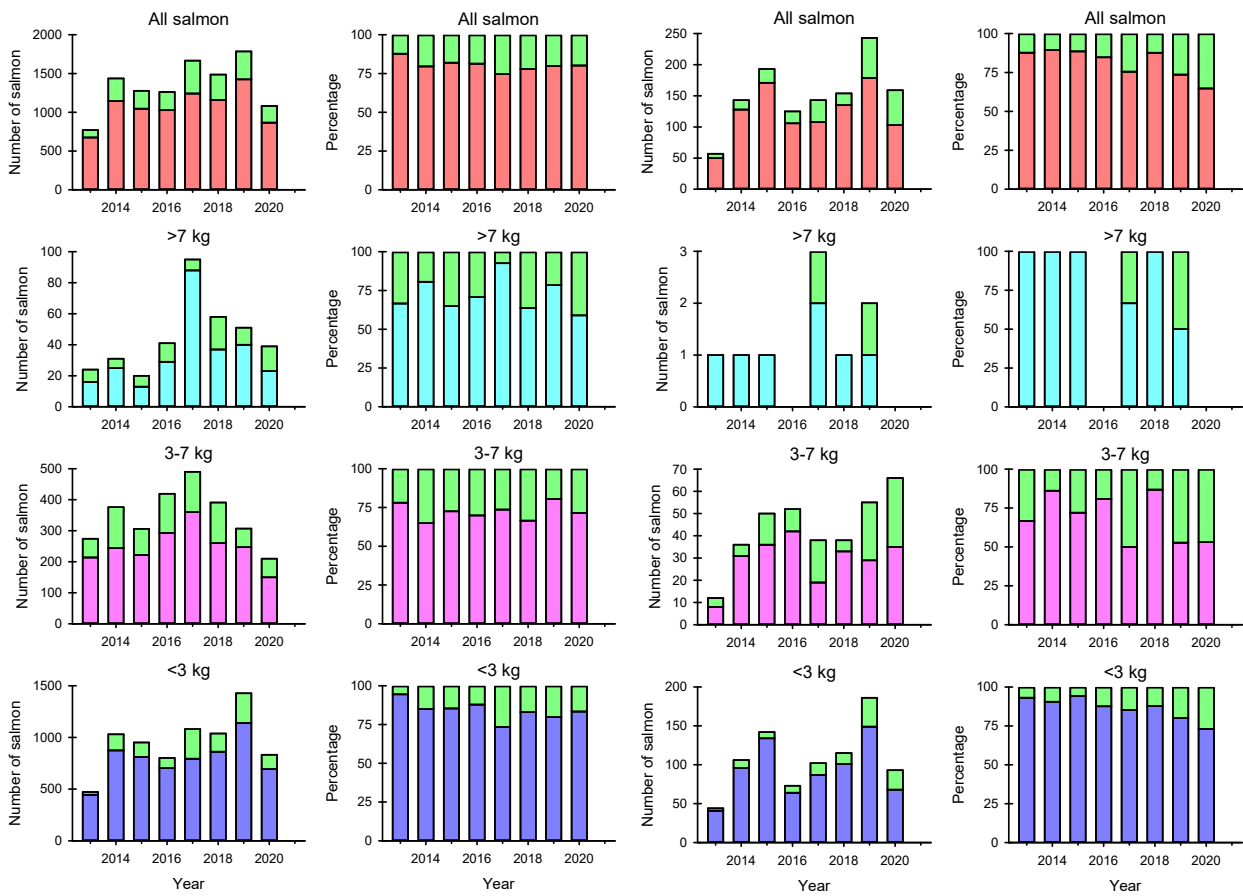


Figure 85. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Komagelv (on the left) and Sandfjordelv (Båtsfjord) (on the right). Source: SSB

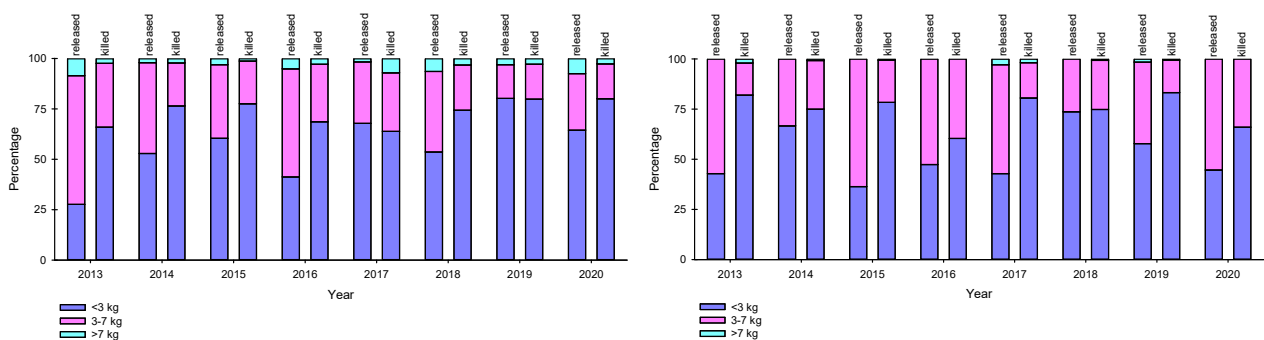


Figure 86. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Komagelv (on the left) and Sandfjordelv (Båtsfjord) (on the right). Source: SSB

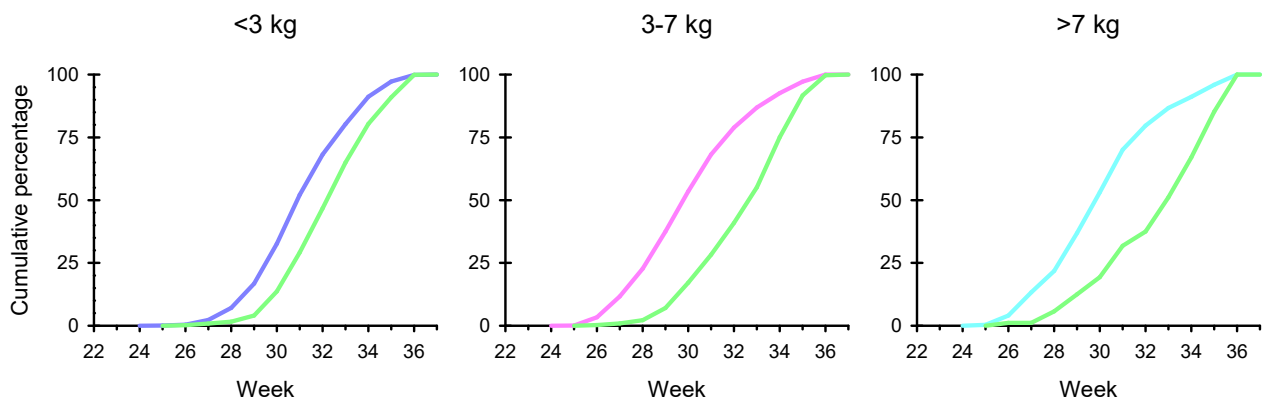


Figure 87. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Komagelv (years 2013-2020 combined). Source: SSB

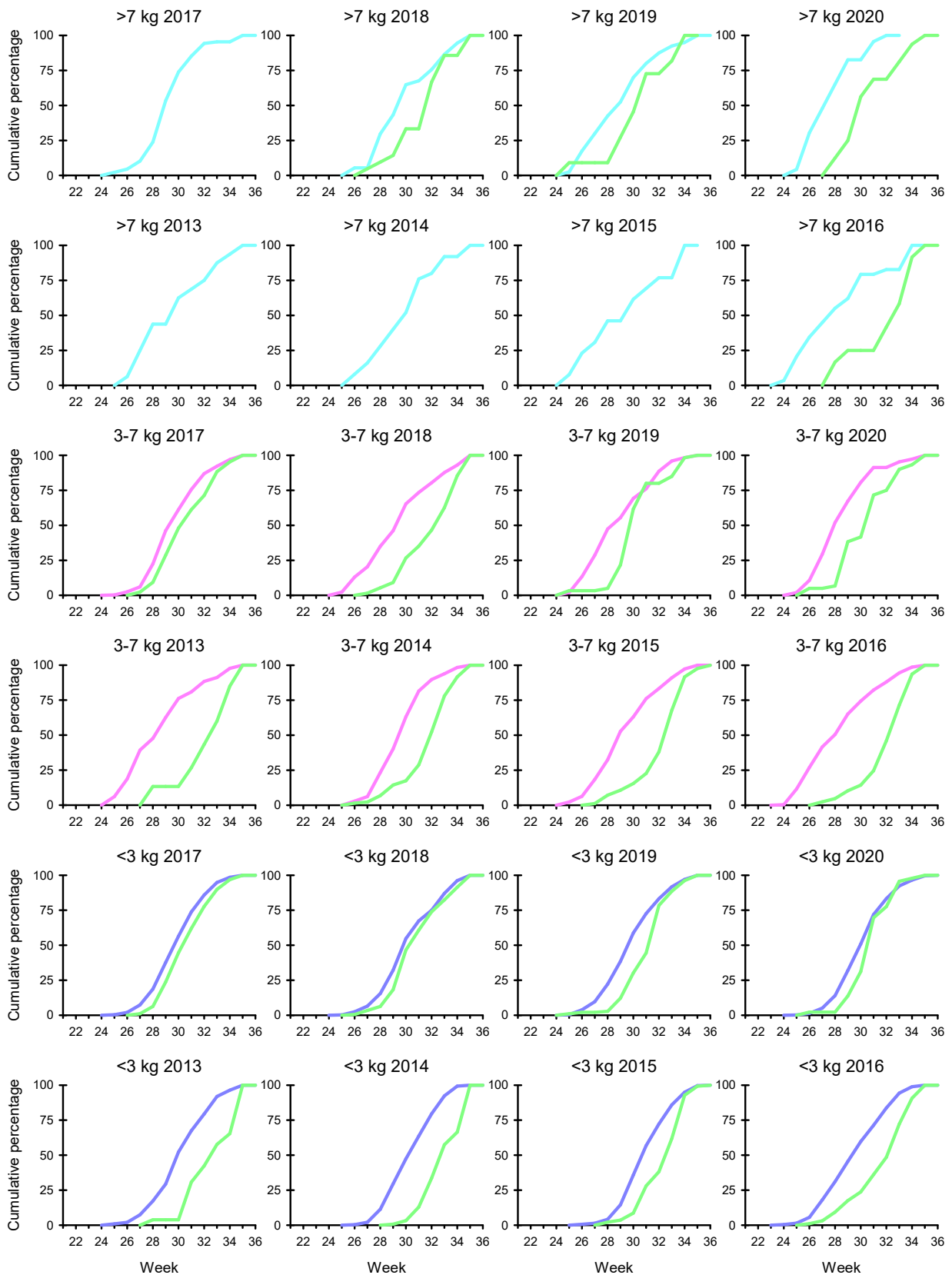


Figure 88. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Komagelvi in the years 2013-2020. Source: SSB

40. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Syltefjordelv (Ordo) and Kongsfjordelv

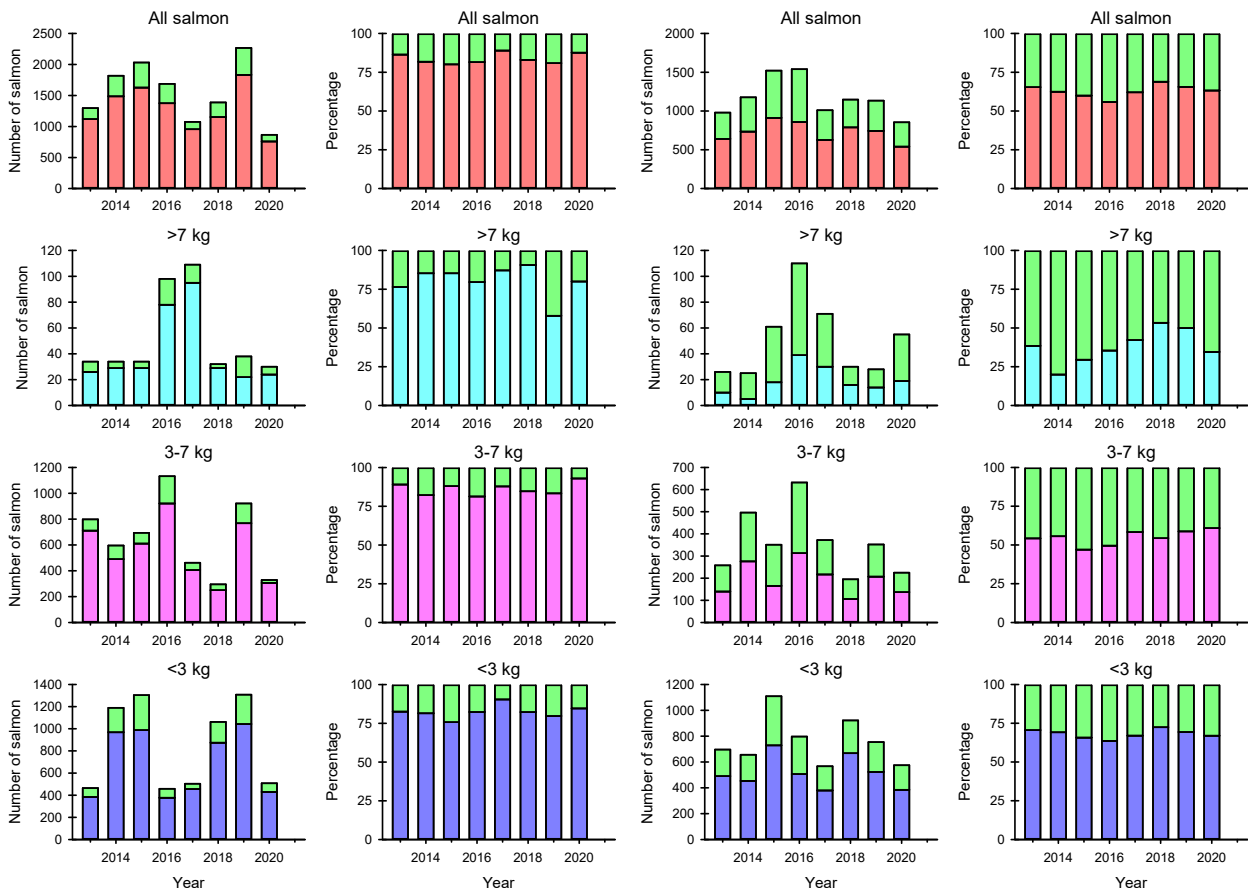


Figure 89. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Syltefjordelv (Ordo) (on the left) and Kongsfjordelv (on the right). Source: SSB

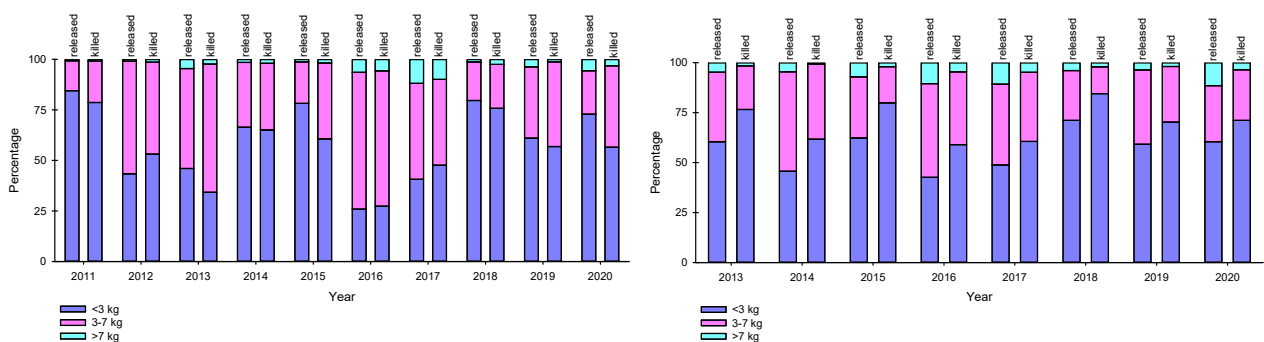


Figure 90. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Syltefjordelva (Ordo) (figure on the left) and Kongsfjordelva (on the right). Source: SSB

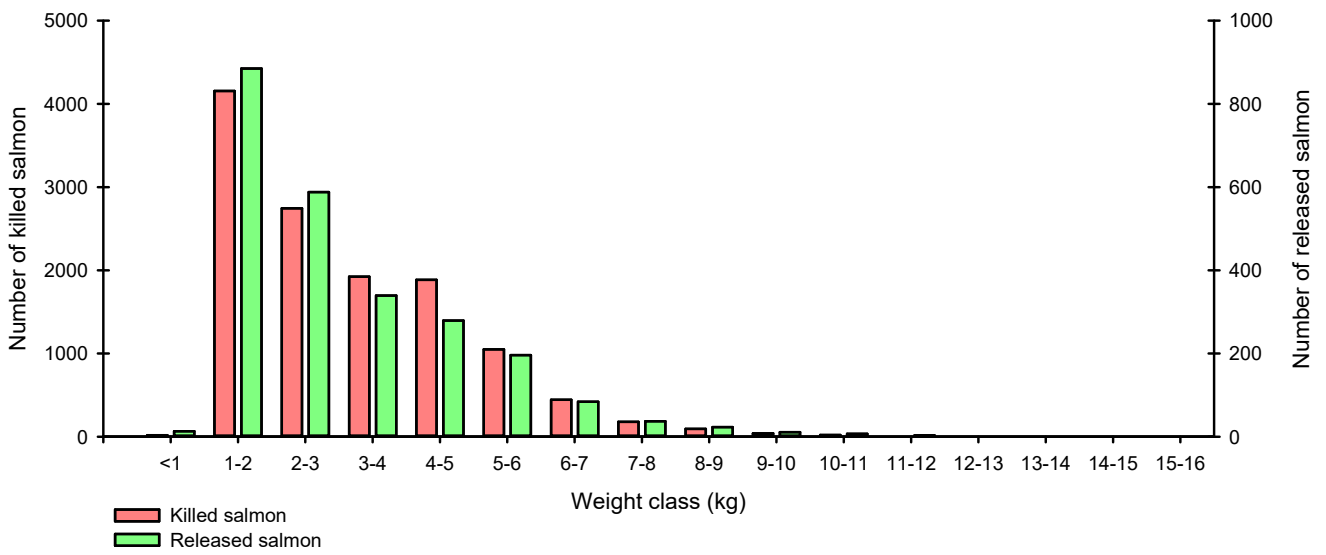


Figure 91. Size distributions of released and killed salmon between weight classes in the River Syltefjordelv (years 2011-2020 combined). Source: SSB

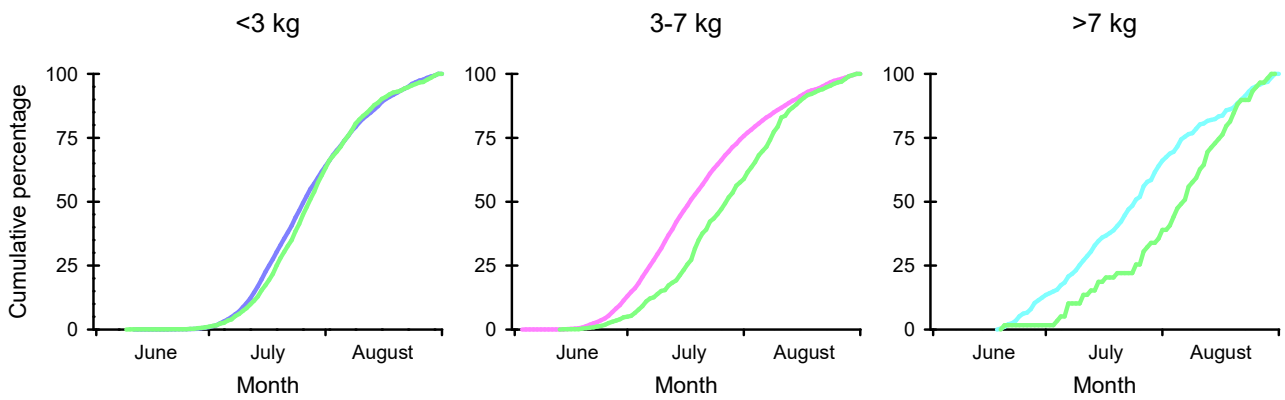


Figure 92. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Syltefjordelv (years 2013-2020 combined). Source: SSB

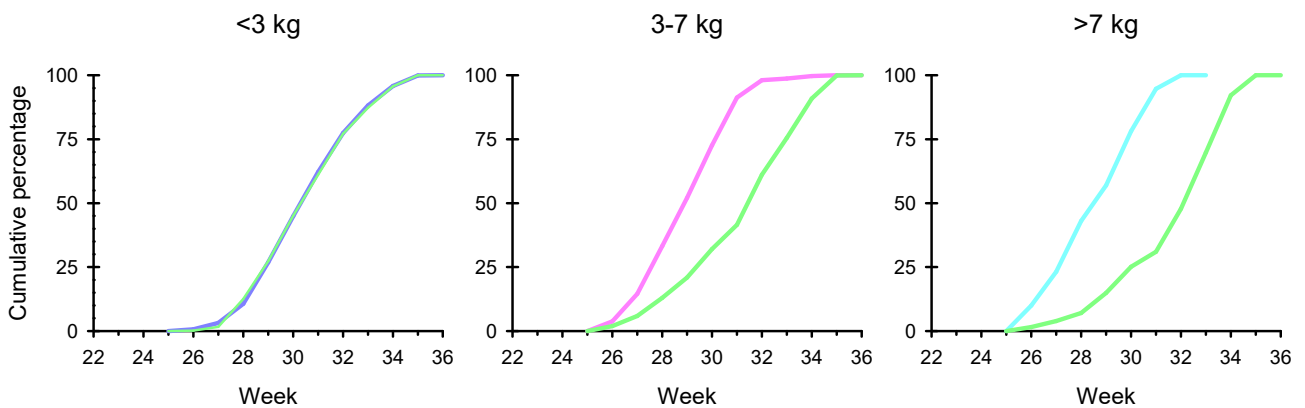


Figure 93. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Kongsfjordelv (years 2013-2020 combined). Source: SSB

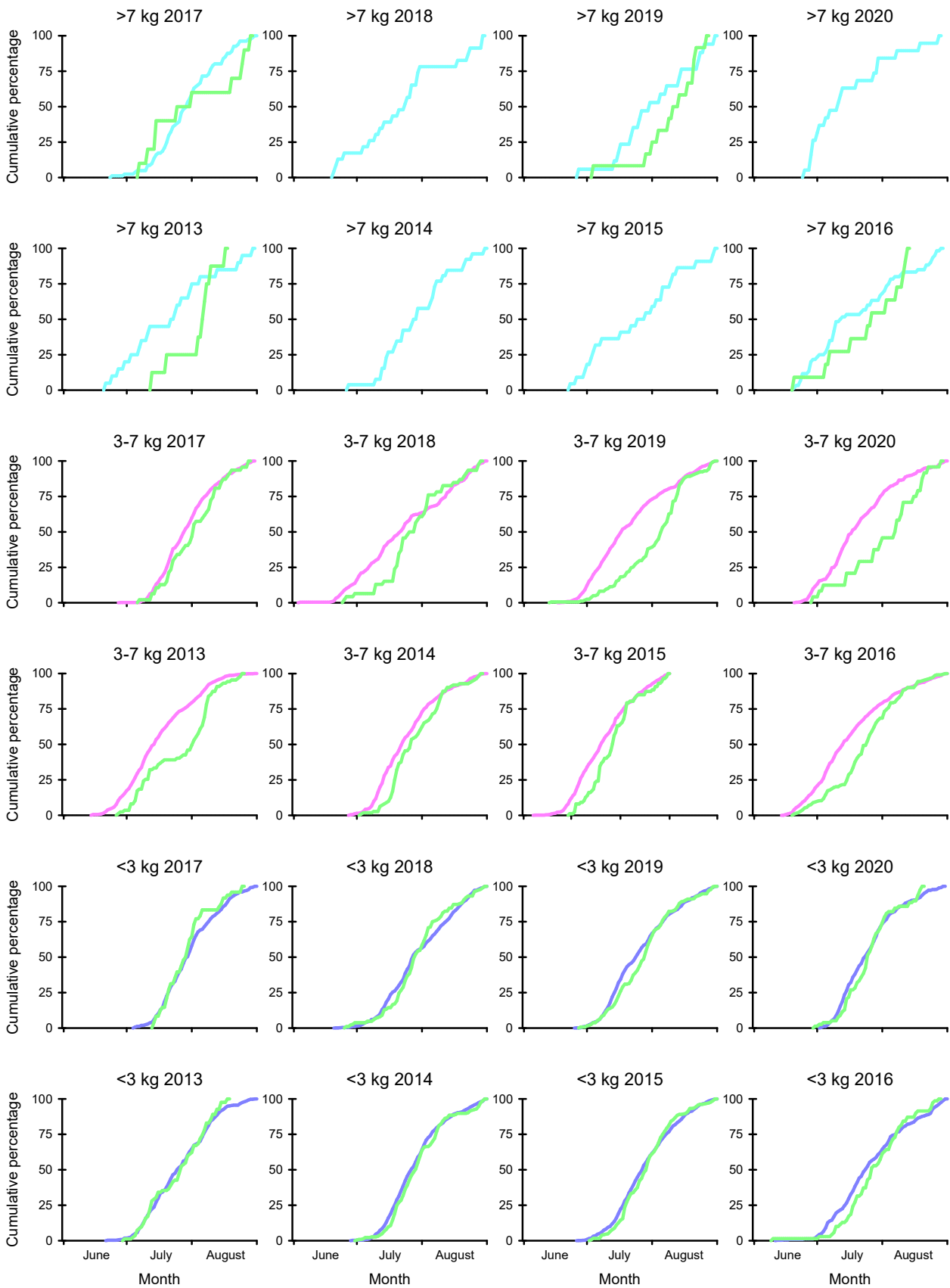


Figure 94. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Syltefjordelv in the years 2013-2020. Source: SSB

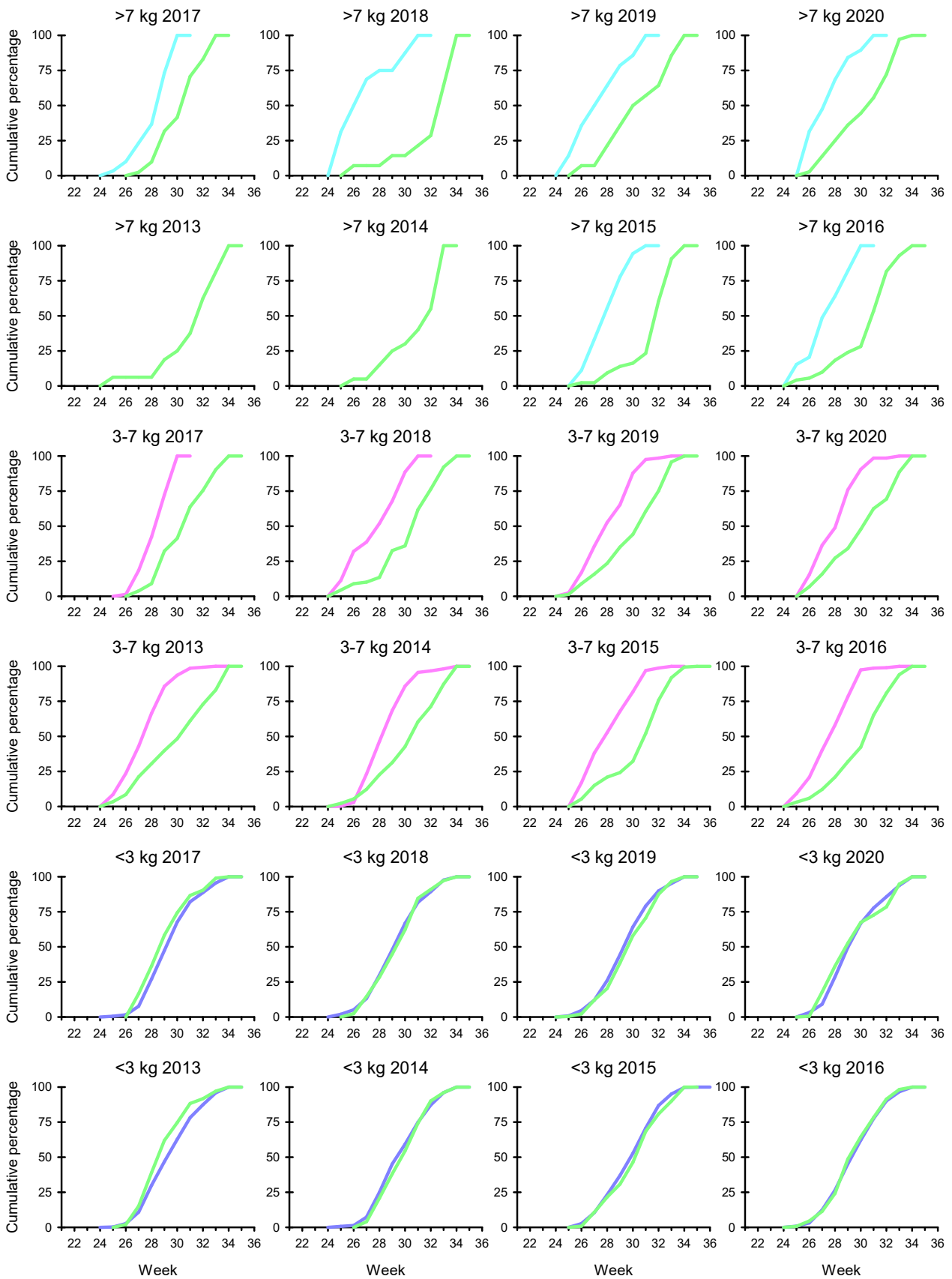


Figure 95. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Kongsfjordelva in the years 2013-2020. Source: SSB

41. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Tanaelv watershed (Norway) and Langfjordelv (Laggo)

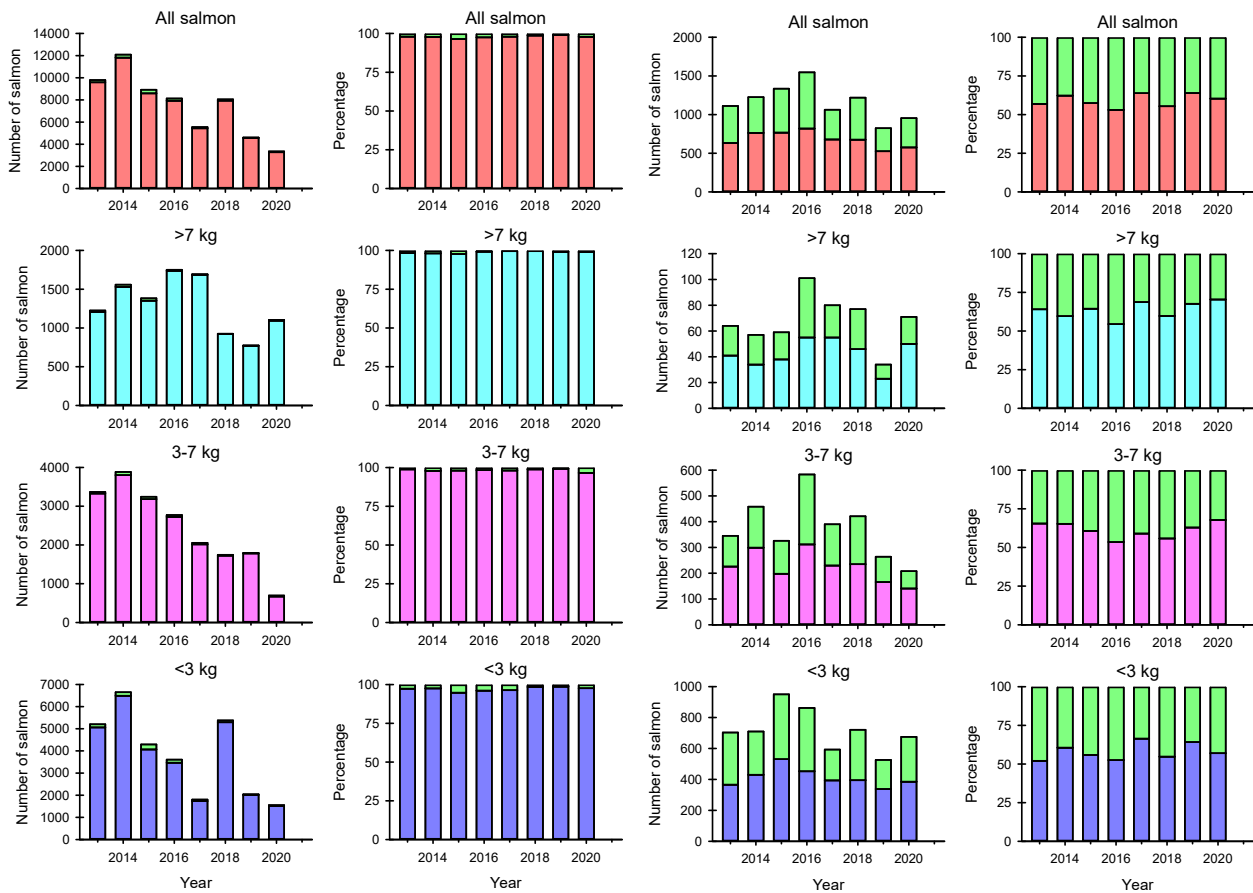


Figure 96. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Tanaelv watershed (Norway) (on the left) and Langfjordelv (Laggo) (on the right). Source: SSB

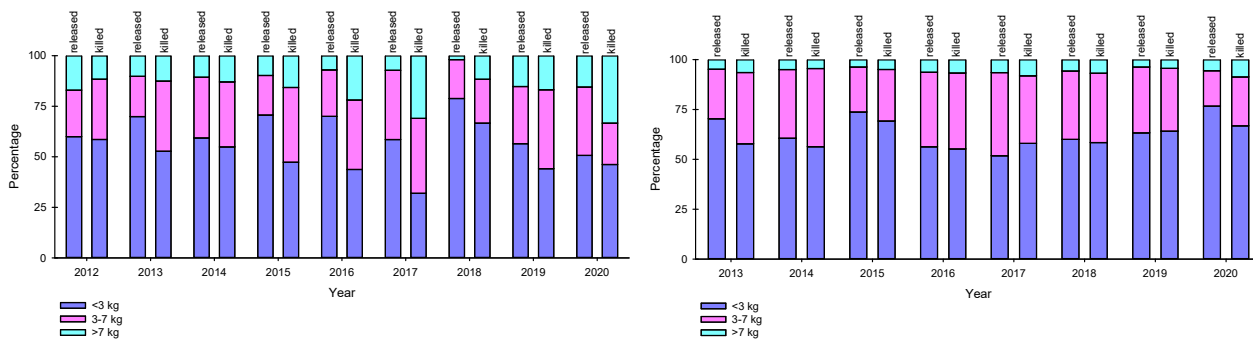


Figure 97. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Tanaelv watershed (Norway) (on the left) and Langfjordelv (on the right). Source: SSB

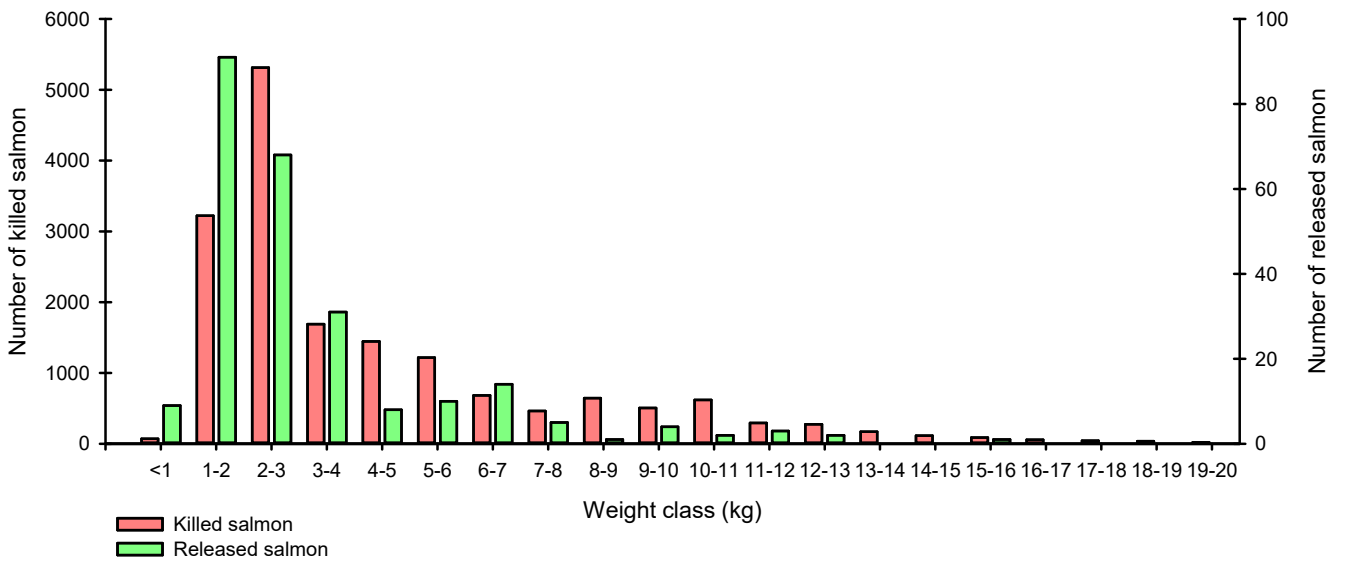


Figure 98. Size distributions of released and killed salmon between weight classes in the River Tanaelv watershed (Norway) (years 2017-2020 combined). Source: SSB

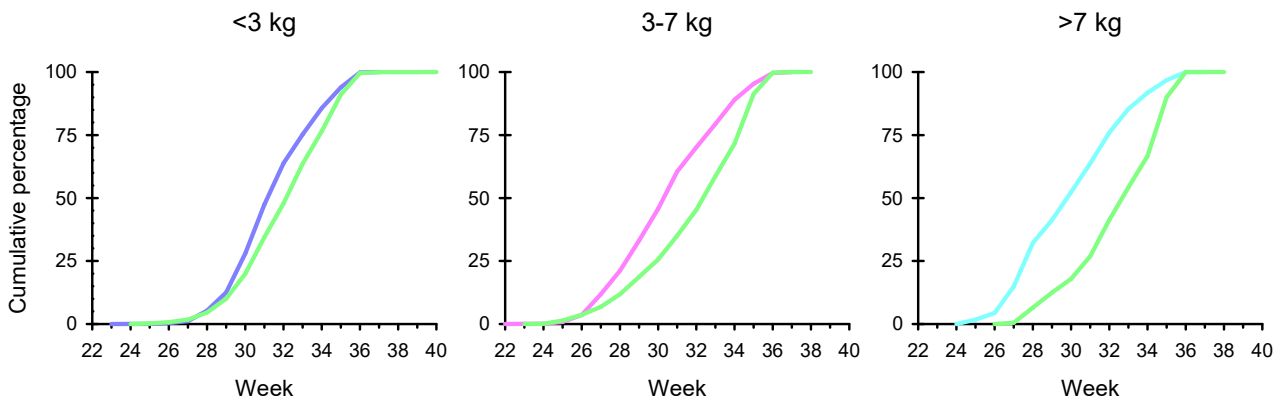


Figure 99. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Langfjordelv (Laggo) (years 2013-2020 combined). Source: SSB

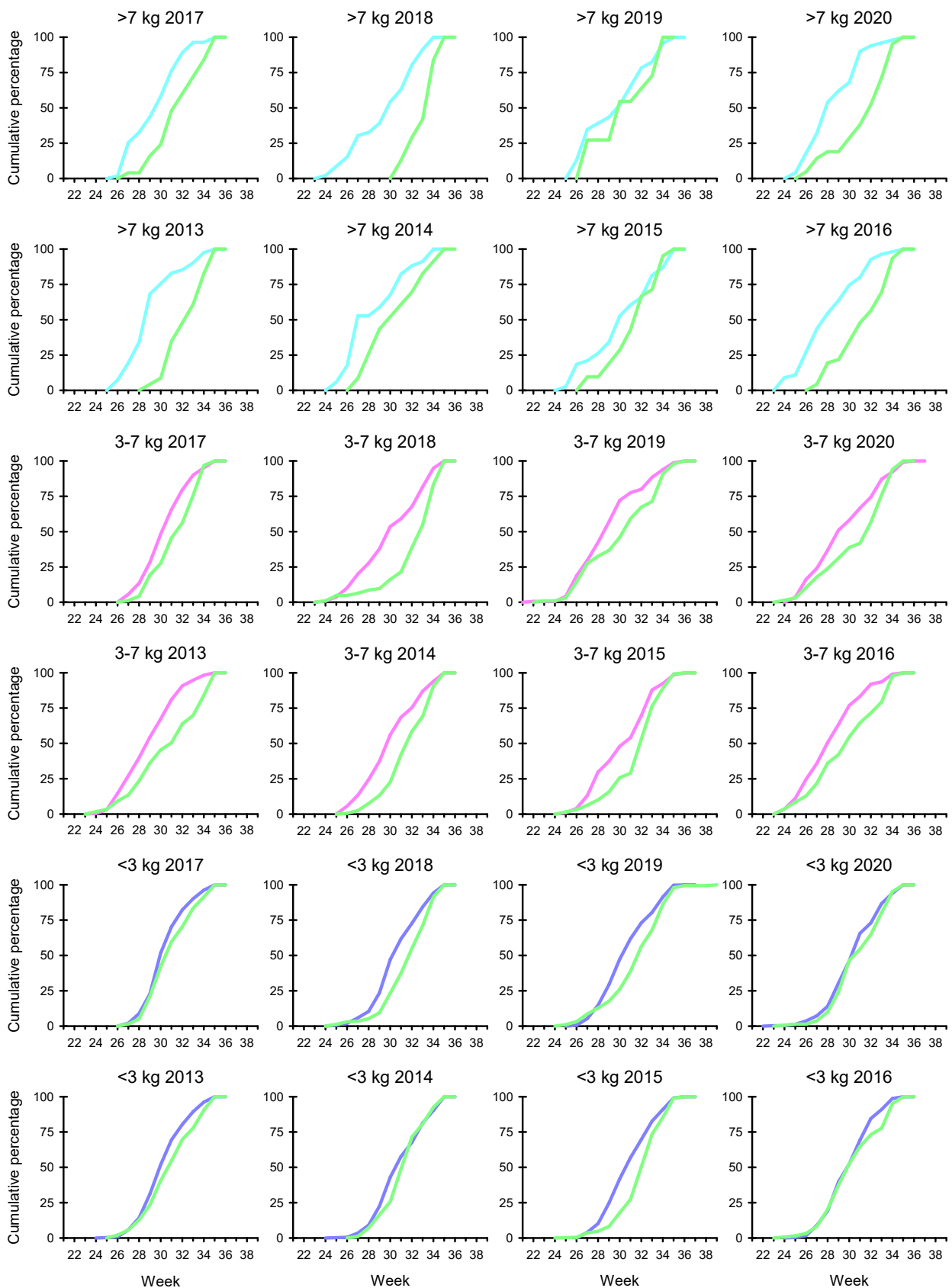


Figure 100. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Langfjordelv (Laggo) in the years 2013-2020. Source: SSB

42. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Risfjordelv and Sandfjordelv (Gamvik)

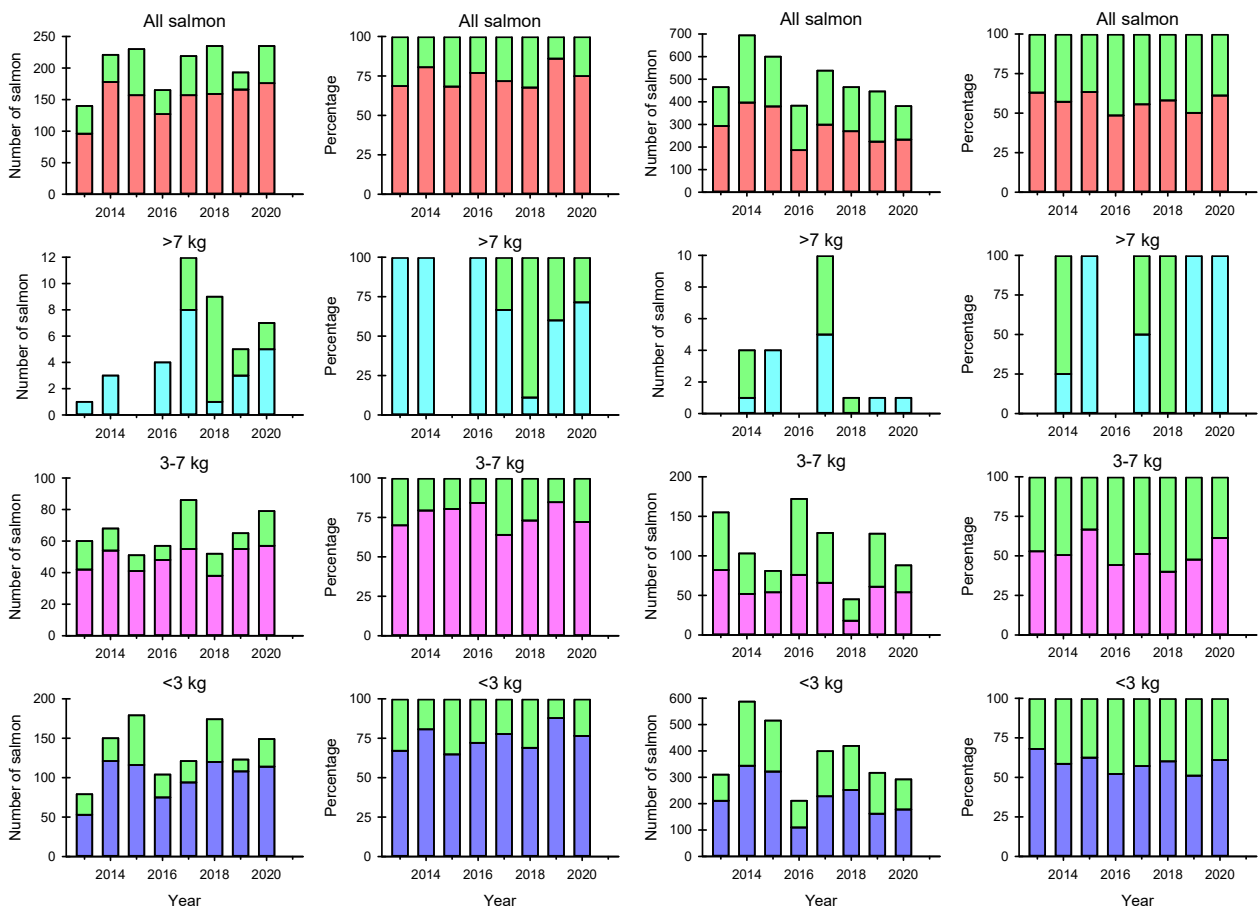


Figure 101 . Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Risfjordelv (on the left) and Sandfjordelv (Gamvik) (on the right). Source: SSB

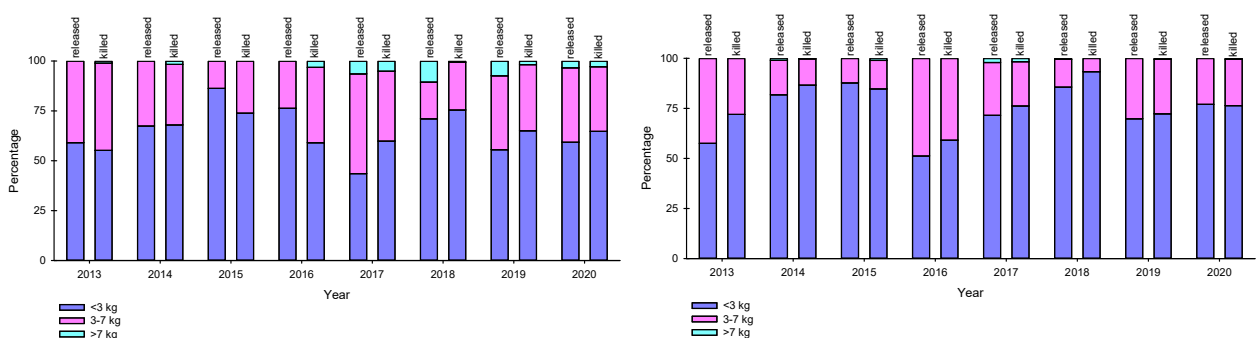


Figure 102. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Risfjordelv (on the left) and Sandfjordelv (Gamvik) (on the right). Source: SSB

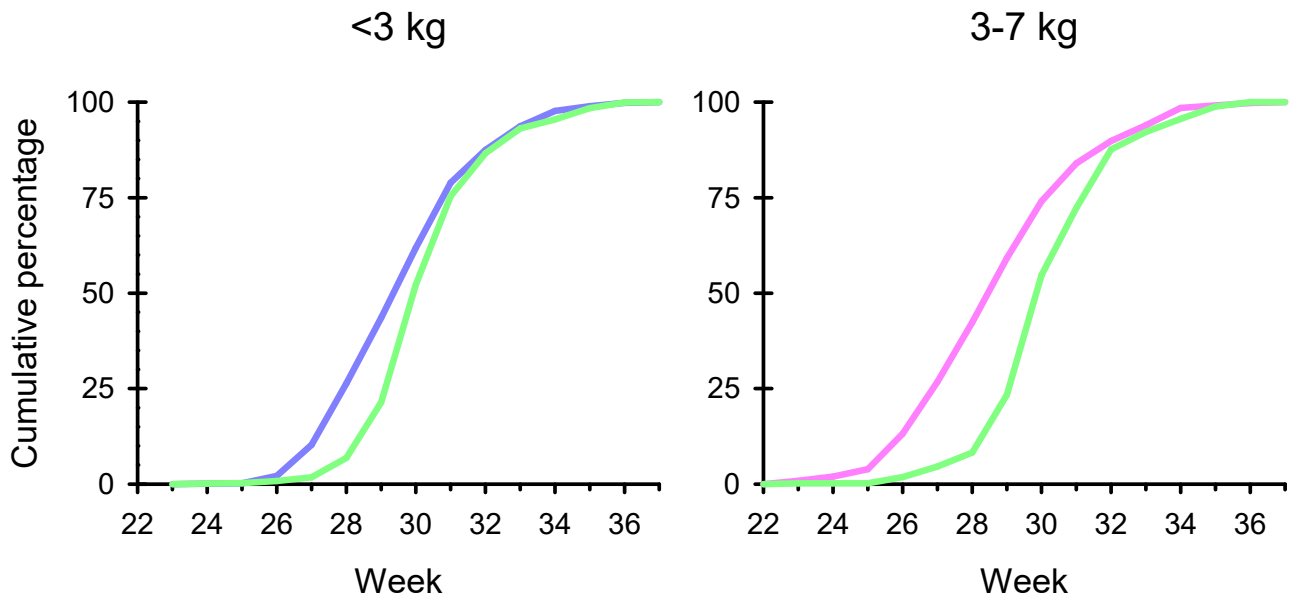


Figure 103. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Sandfjordelv (Gamvik) (years 2013-2020 combined). Source: SSB

43. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Storelv (Lebesby) and Veidneselv

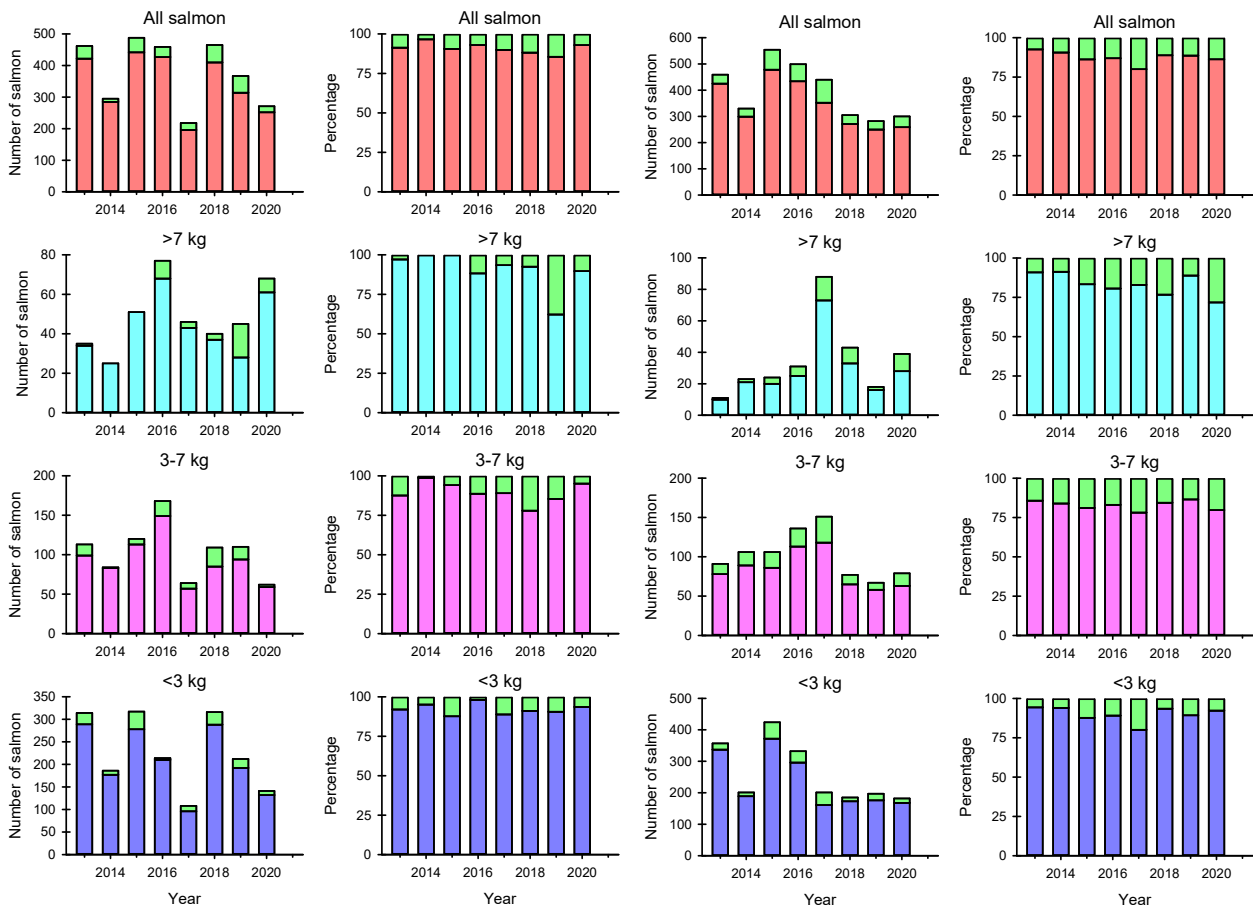


Figure 104. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Storelv (Lebesby) (on the left) and Veidneselv (on the right). Source: SSB

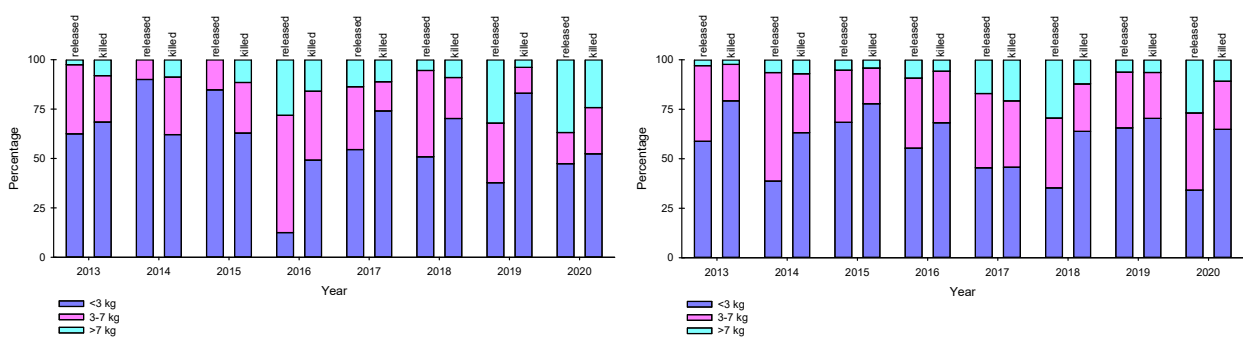


Figure 105. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Storelv (Lebesby) (on the left) and Veidneselv (on the right). Source: SSB

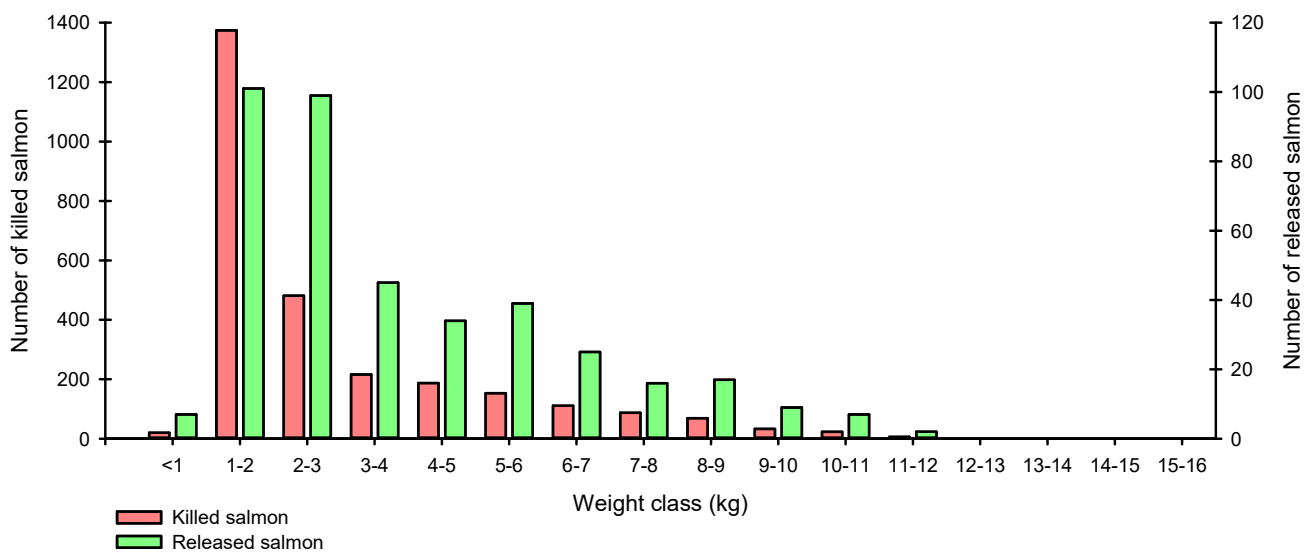


Figure 106. Size distributions of released and killed salmon between weight classes in the River Veidneselv (years 2013-2020 combined). Source: SSB

44. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Lille Porsangerelv and Børselv

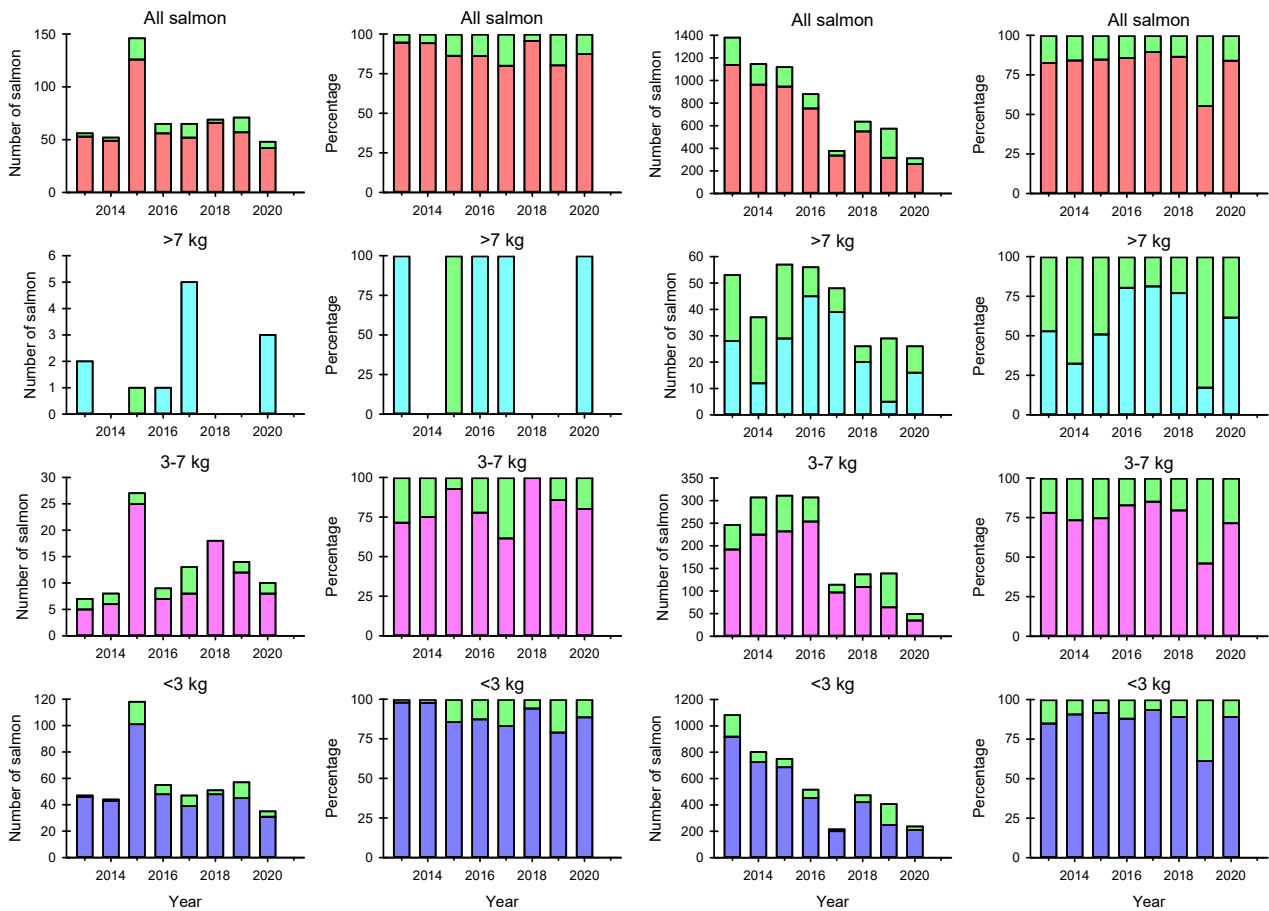


Figure 107. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Lille Porsangerelv (on the left) and Børselv (on the right). Source: SSB

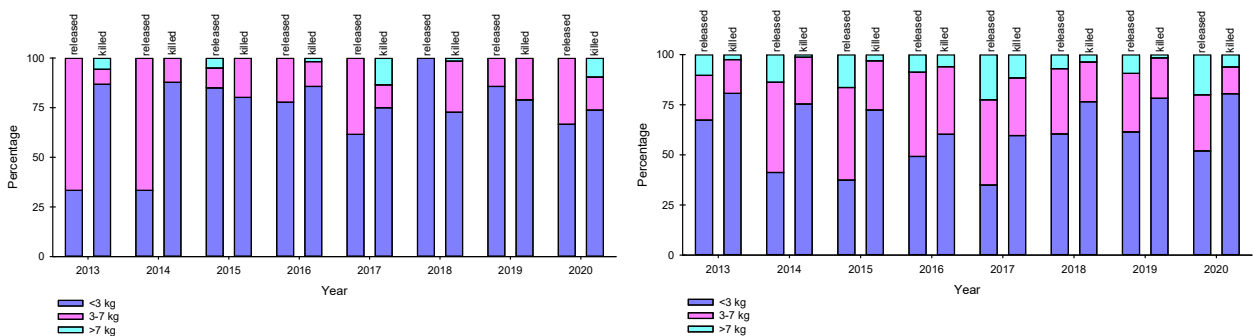


Figure 108. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Lille Porsangerelv (on the left) and Børselv (on the right). Source: SSB

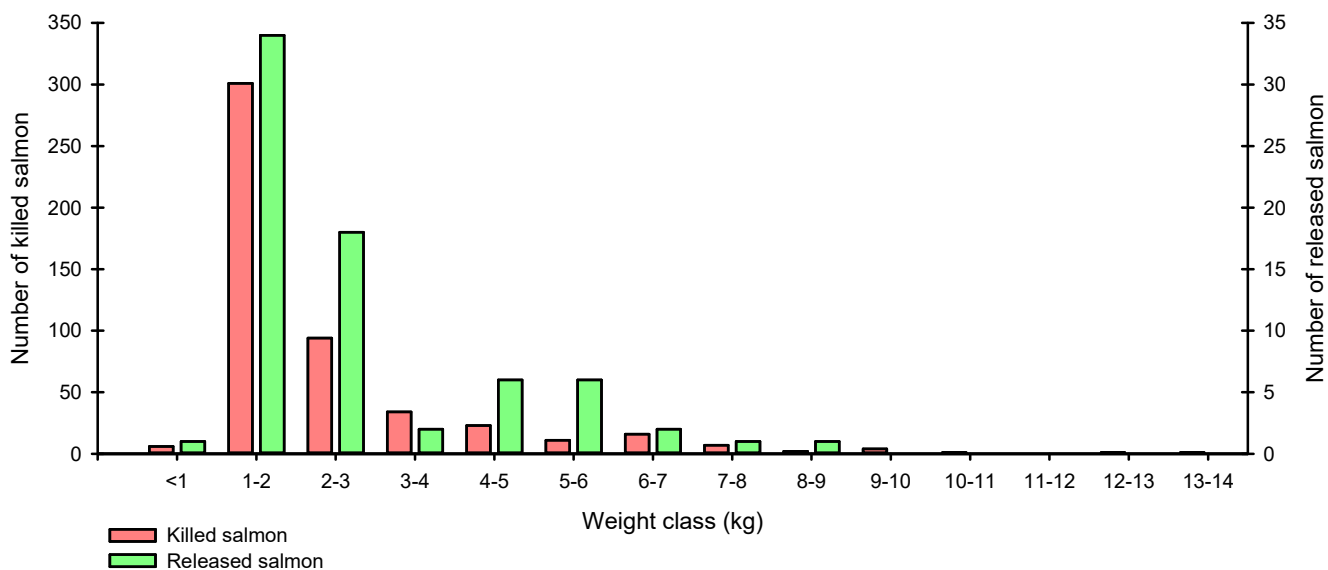


Figure 109. Size distributions of released and killed salmon between weight classes in the River Lille Porsangerelv (years 2013-2020 combined). Source: SSB

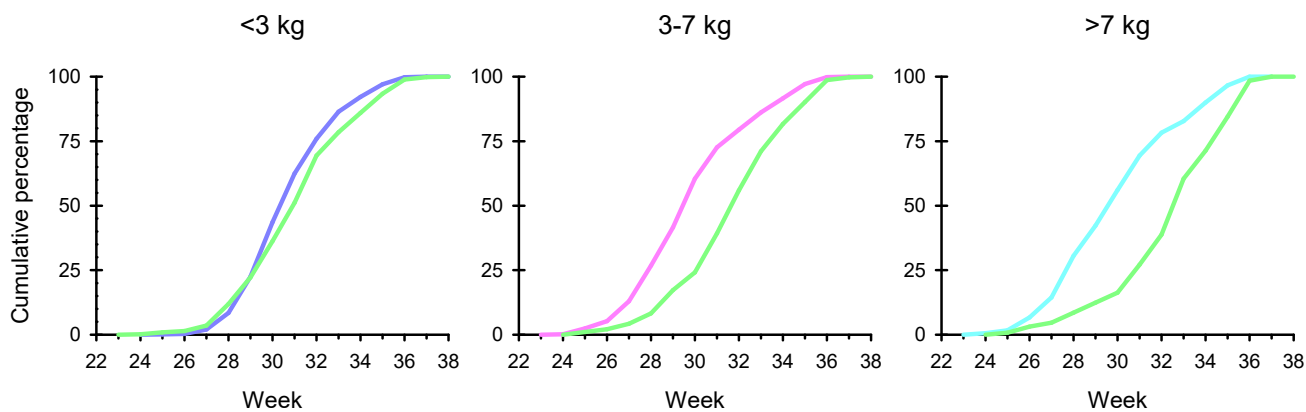


Figure 110. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Børselv (years 2013-2020 combined). Source: SSB

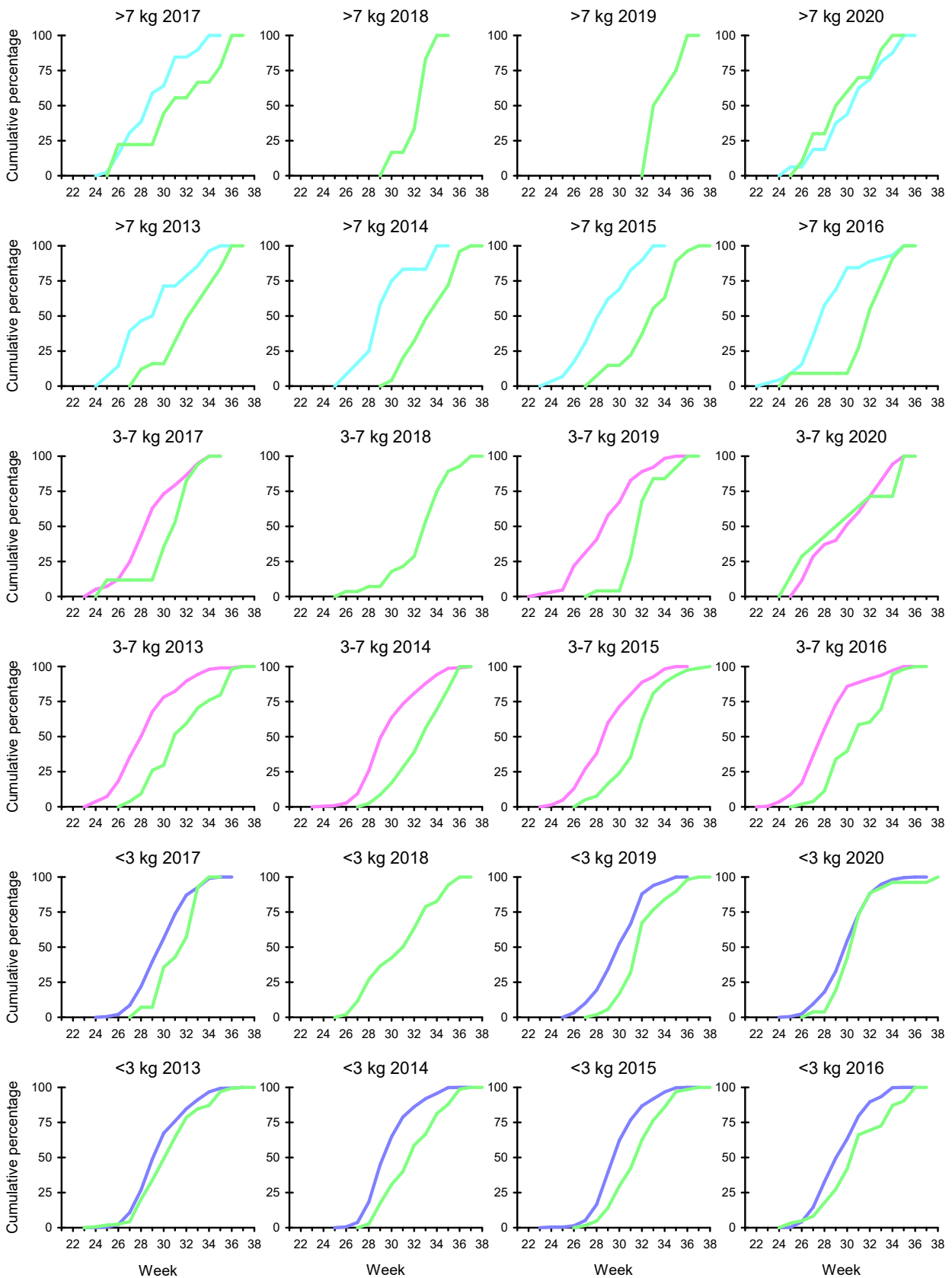


Figure 111. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Borselv in the years 2013-2020. Source: SSB

45. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Lakselv and Stabburselv

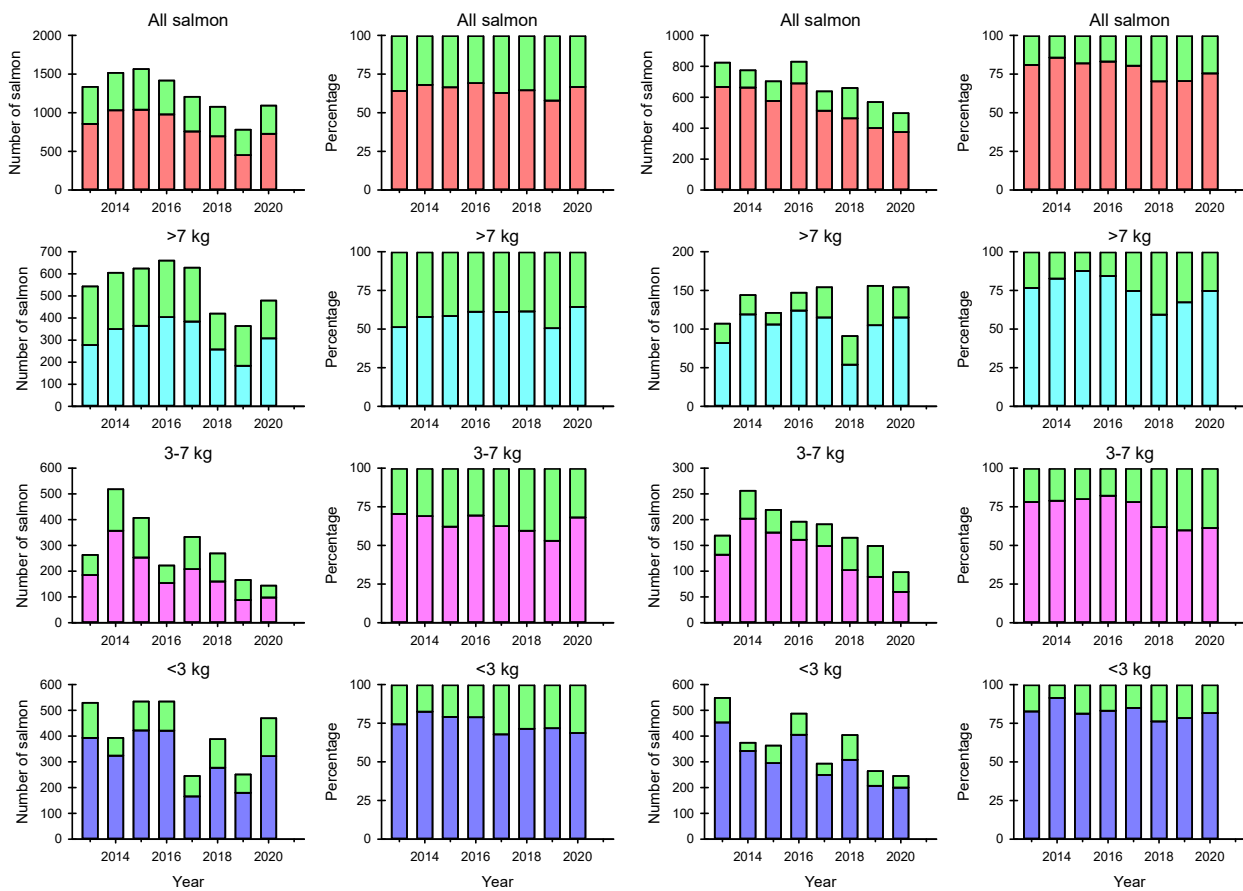


Figure 112. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Lakselv (on the left) and Stabburselv (on the right). Source: SSB

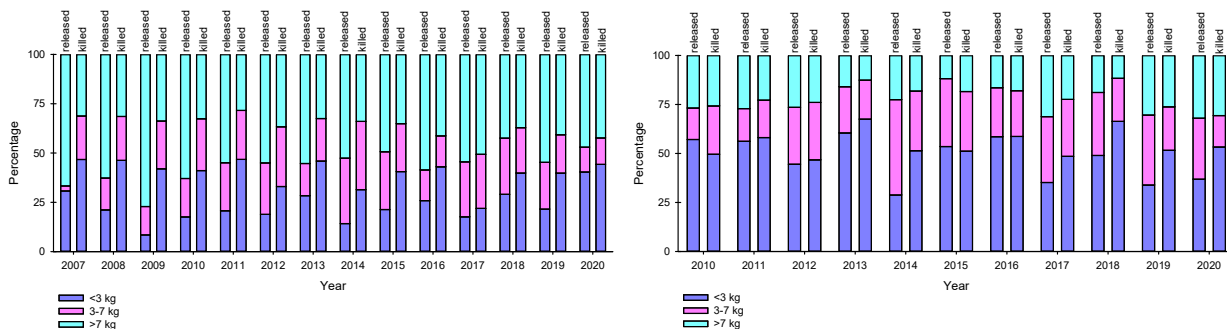


Figure 113. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Lakselv (on the left) and Stabburselv (on the right). Source: SSB

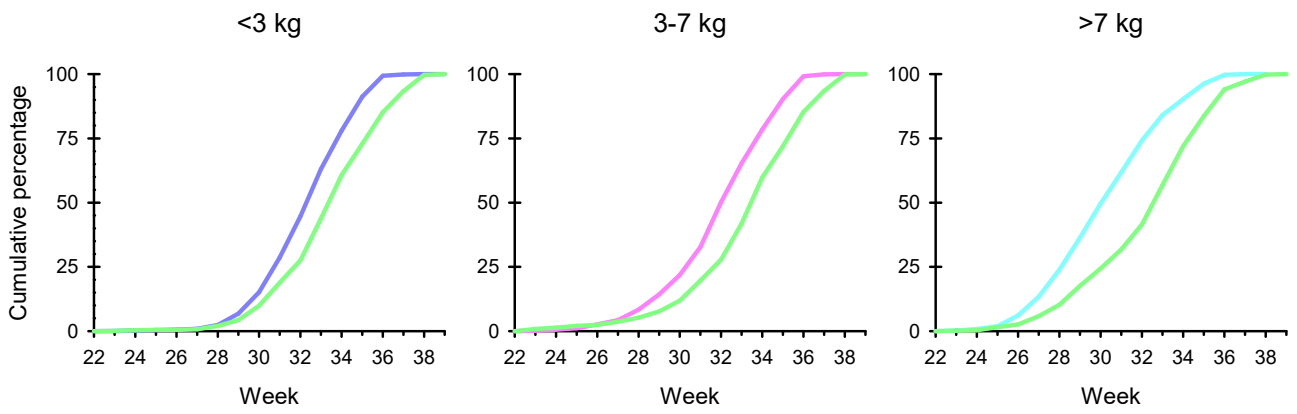


Figure 114. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Lakselv (years 2013-2020 combined). Source: SSB

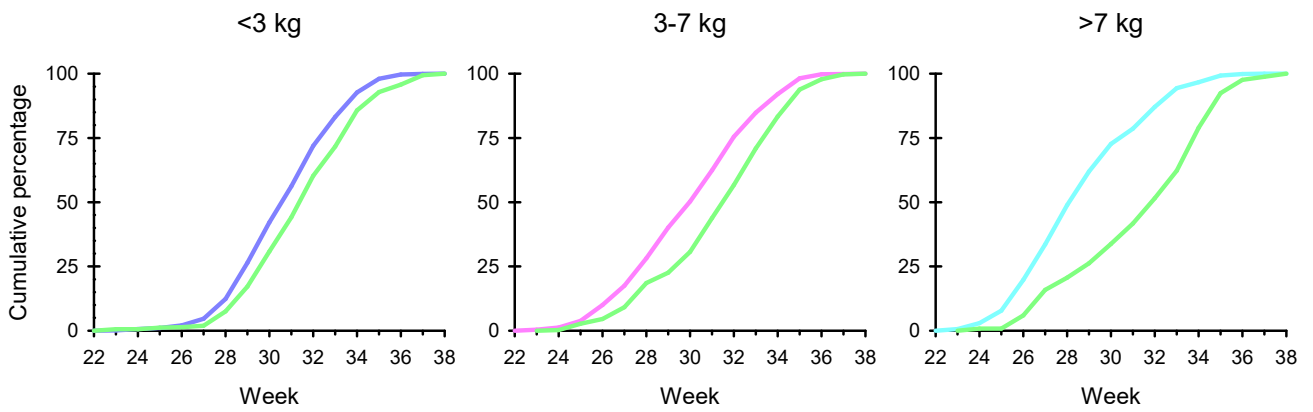


Figure 115. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Stabburselv (years 2013-2020 combined). Source: SSB

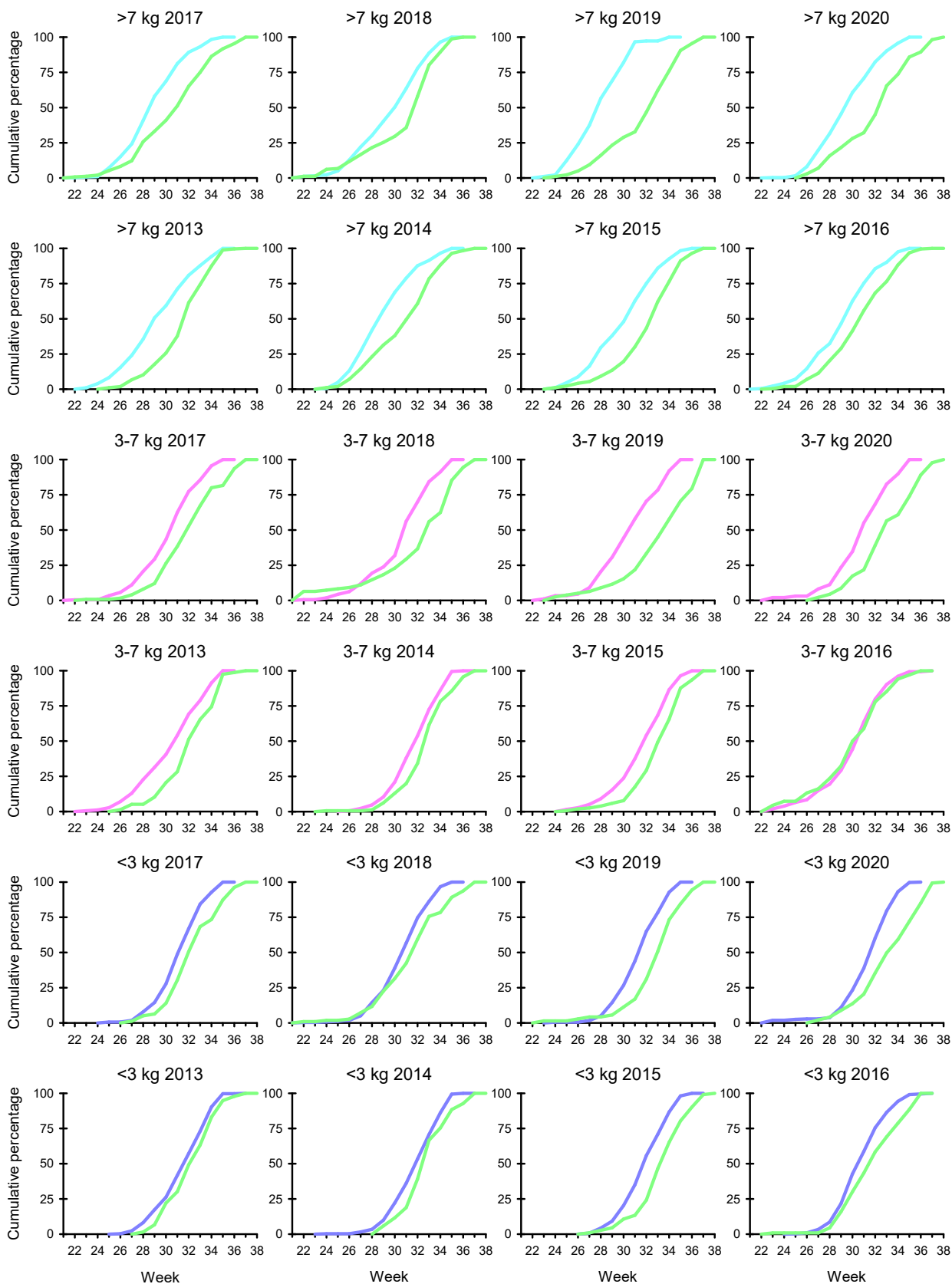


Figure 116. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Laksely in the years 2013-2020. Source: SSB

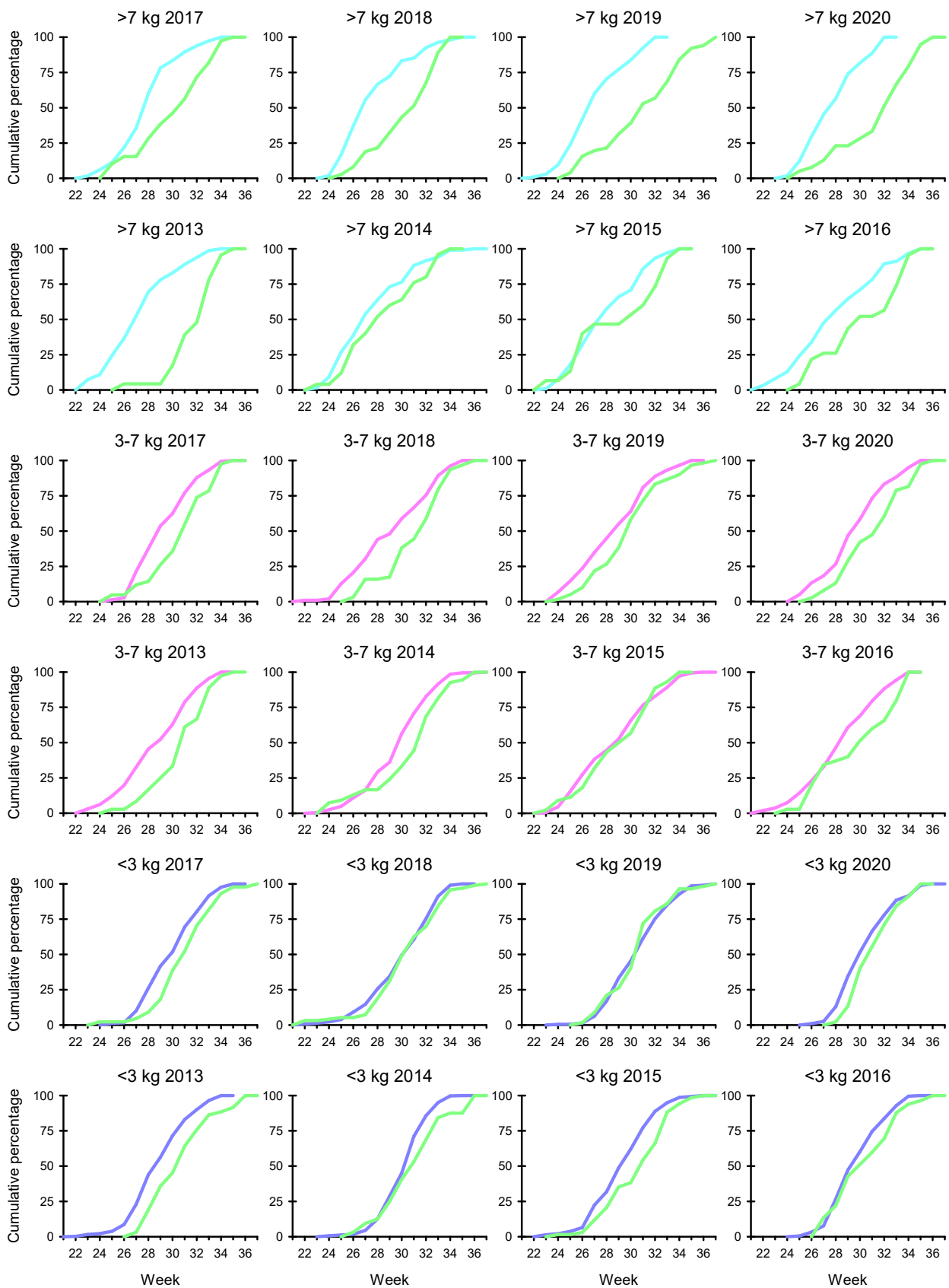


Figure 117. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Stabburselv in the years 2013-2020. Source: SSB

46. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Repparfjordelv and in Altaelv

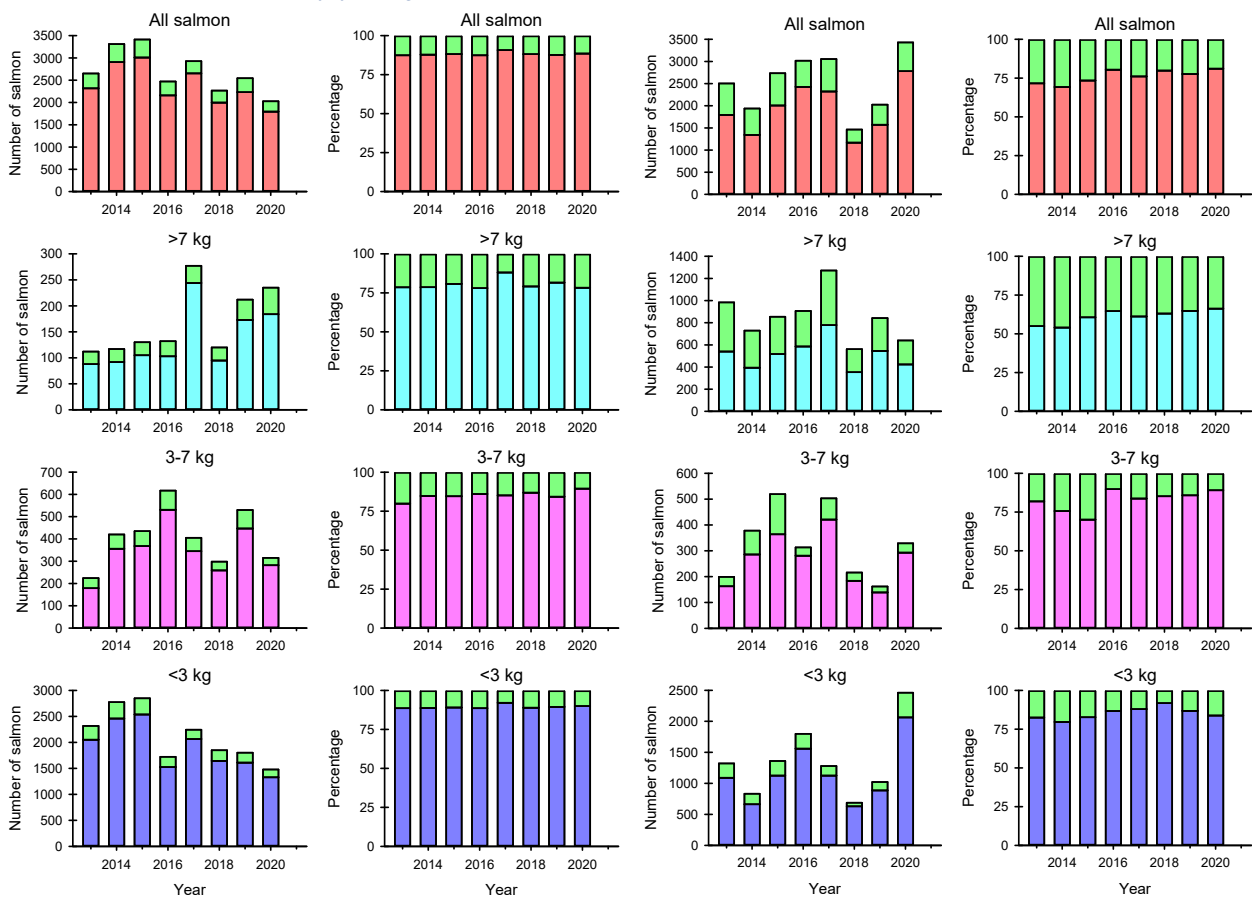


Figure 118. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Repparfjordelv (on the left) and in Altaelv (on the right). Source: SSB

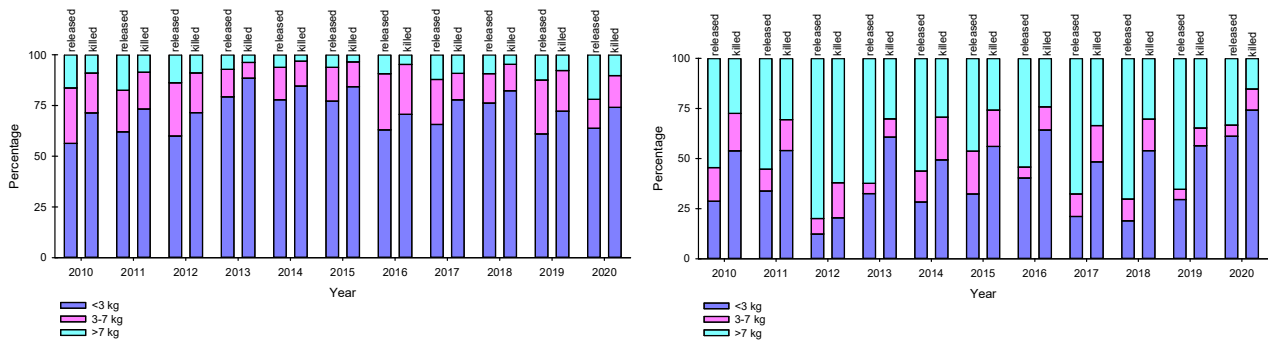


Figure 119. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Repparfjordelv (on the left) and Altaelv (on the right). Source: SSB

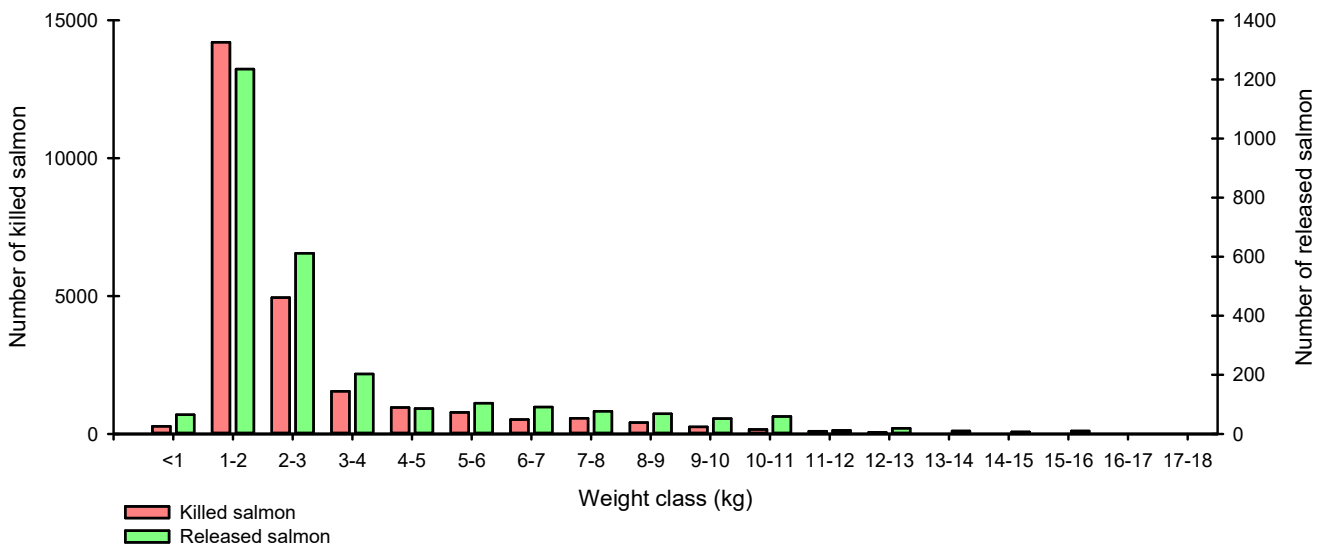


Figure 120. Size distributions of released and killed salmon between weight classes in the River Repparfjordelv (years 2010-2020 combined). Source: SSB

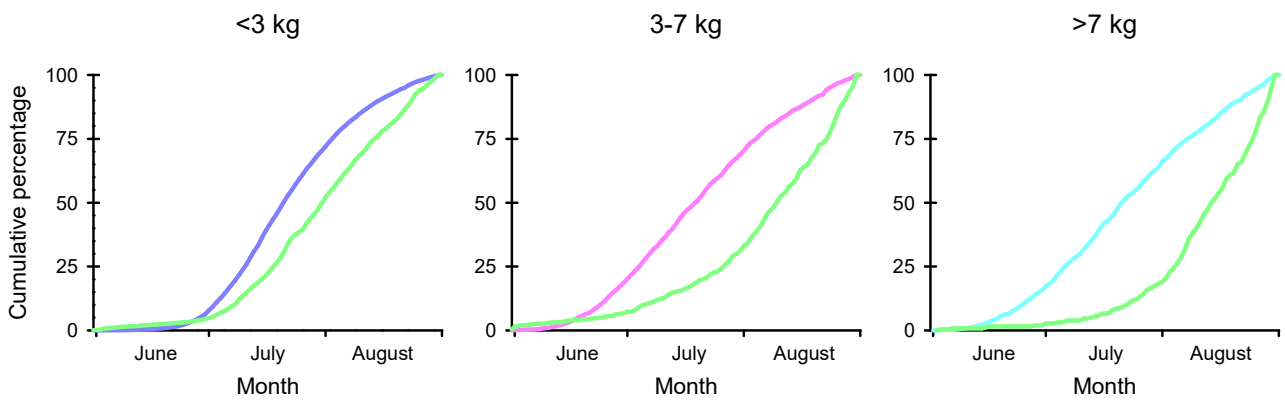


Figure 121. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Repparfjordelv (years 2013-2020 combined). Source: SSB

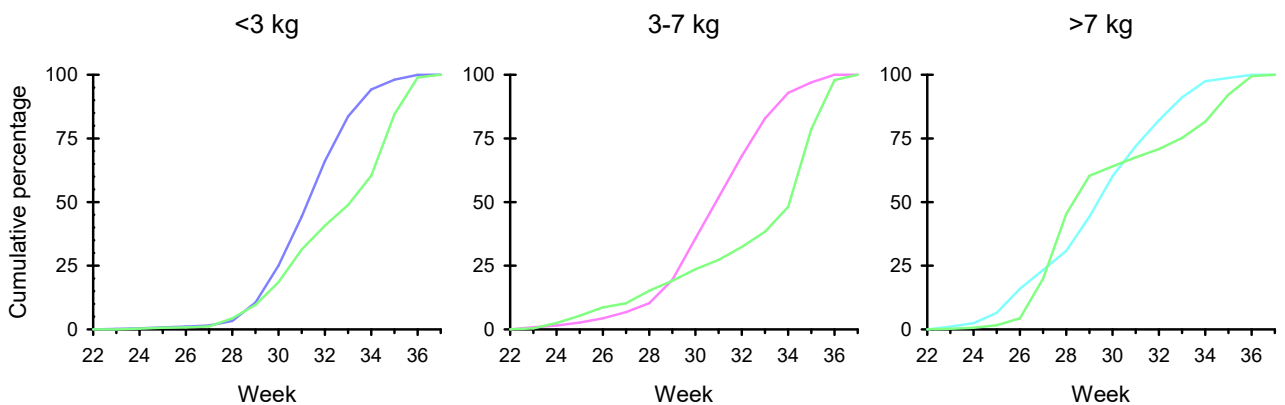


Figure 122. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Altaelv (years 2013-2020 combined). Source: SSB

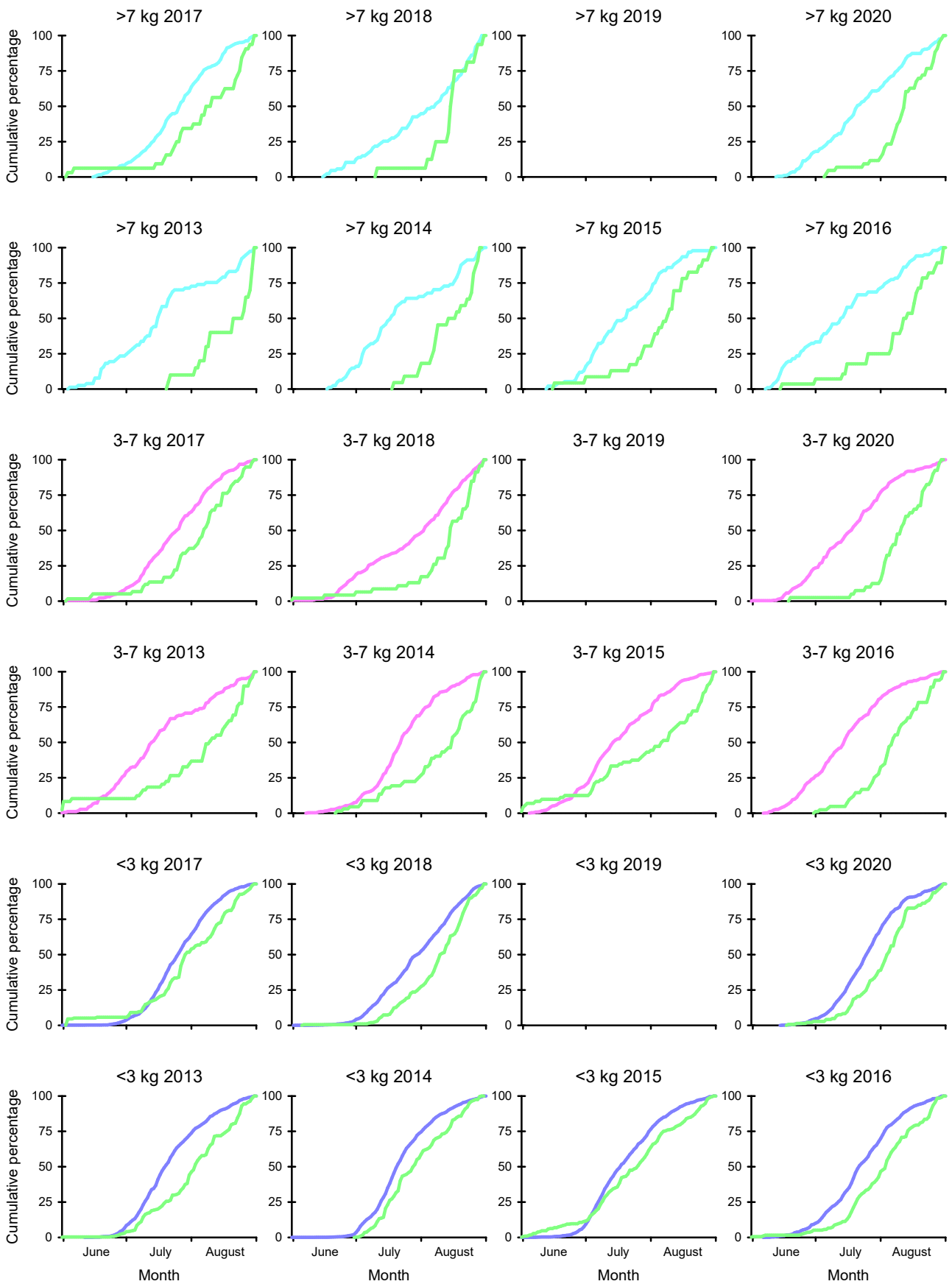


Figure 123. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Repparfjordelv in the years 2013-2020. Source: SSB

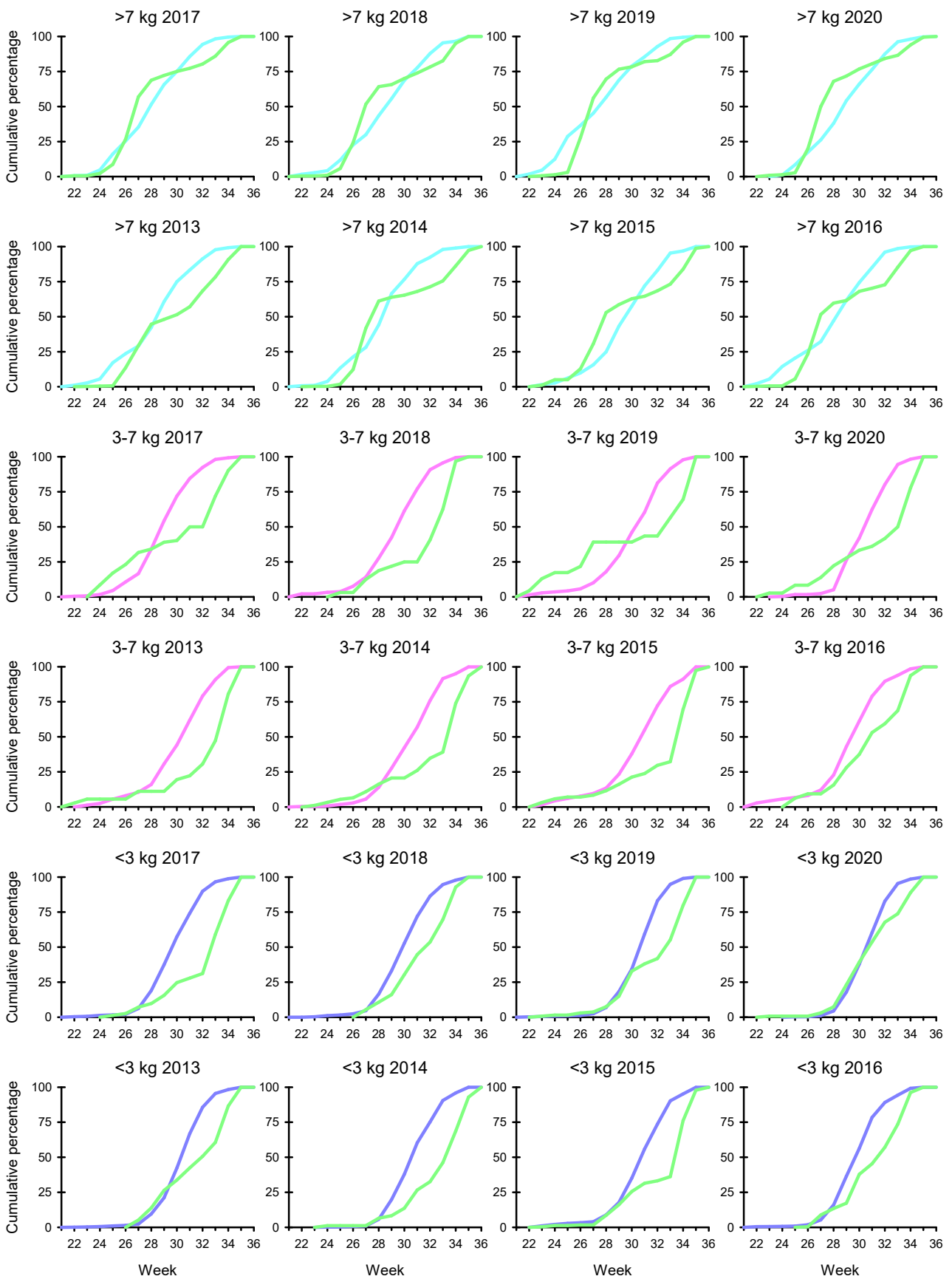


Figure 124. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Altaelv in the years 2013-2020. Source: SSB

47. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Reissaelv and Nordkjoselv

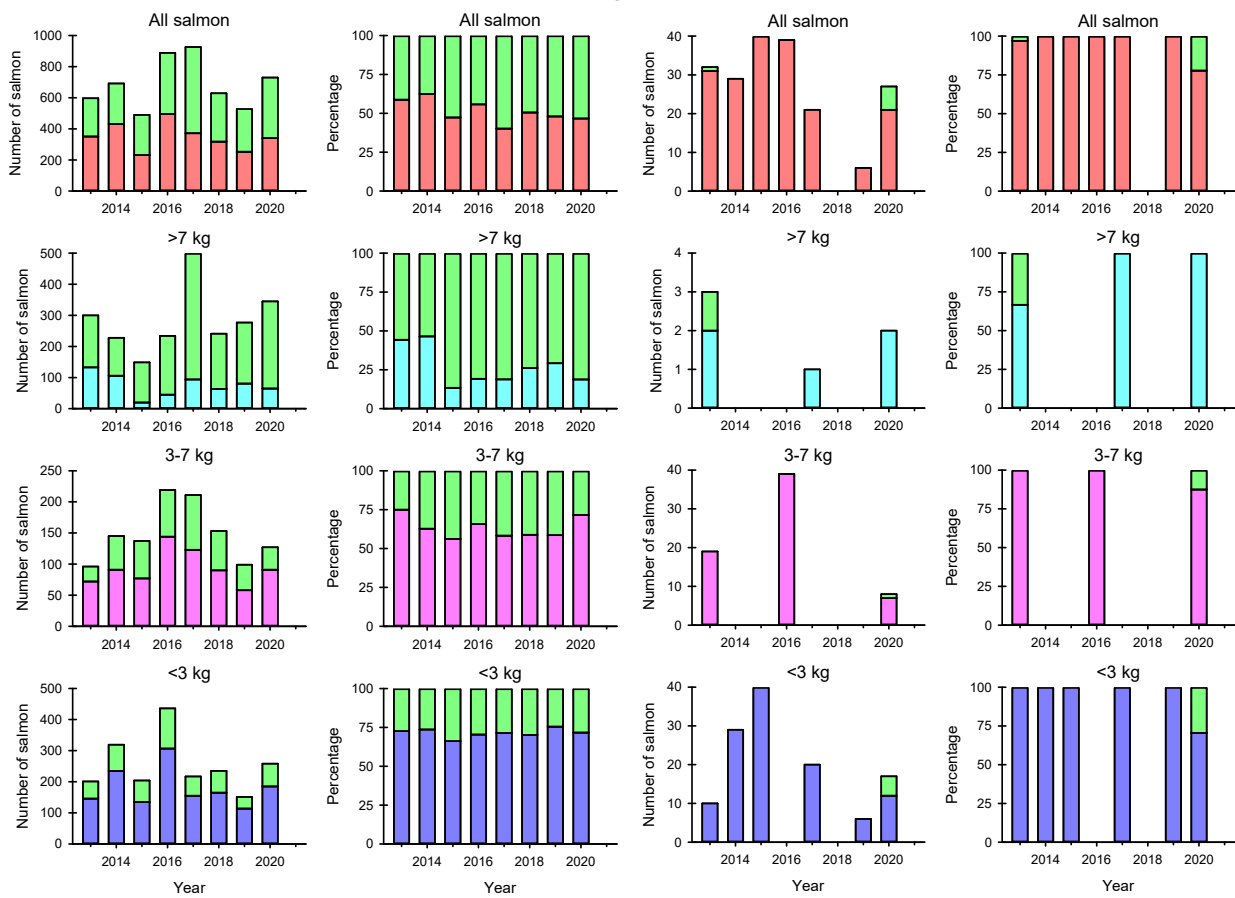


Figure 125. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Reissaelv (on the left) and Nordkjoselv (on the right). Source: SSB

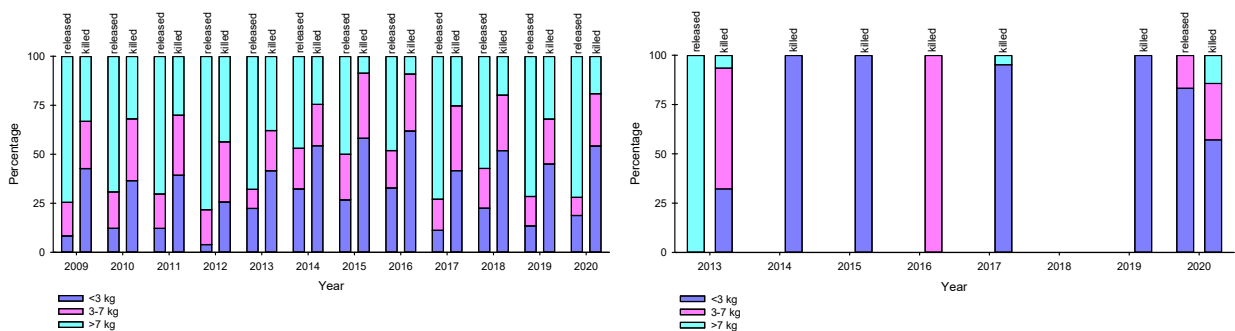


Figure 126. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Reissaelv (on the left) and Nordkjoselv (on the right). Source: SSB

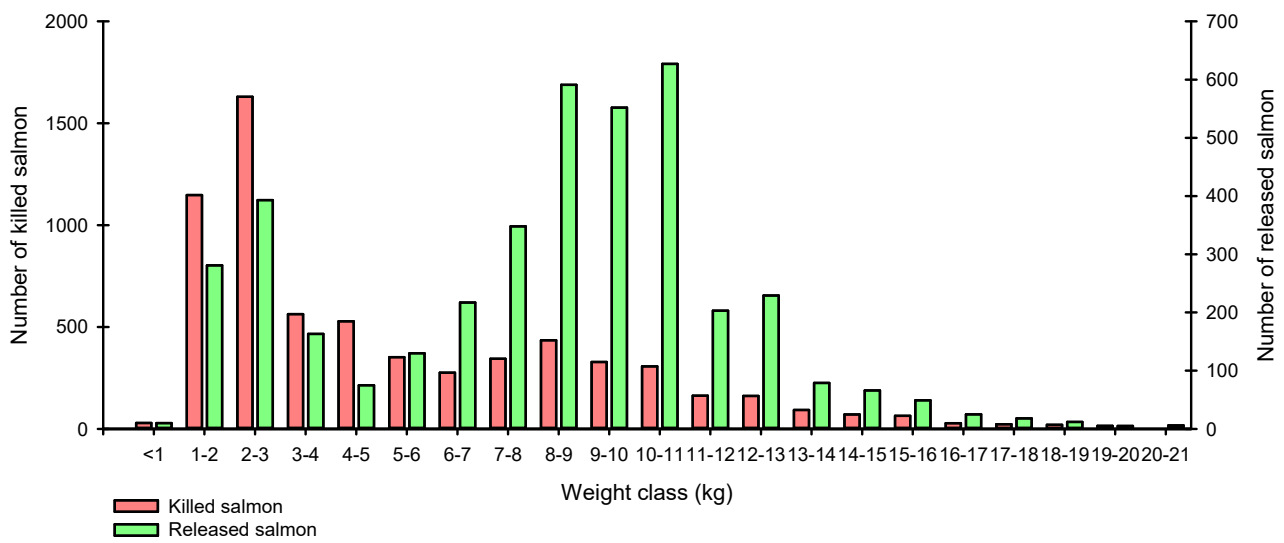


Figure 127. Size distributions of released and killed salmon between weight classes in the River Reisaelv (years 2009-2020 combined). Source: SSB

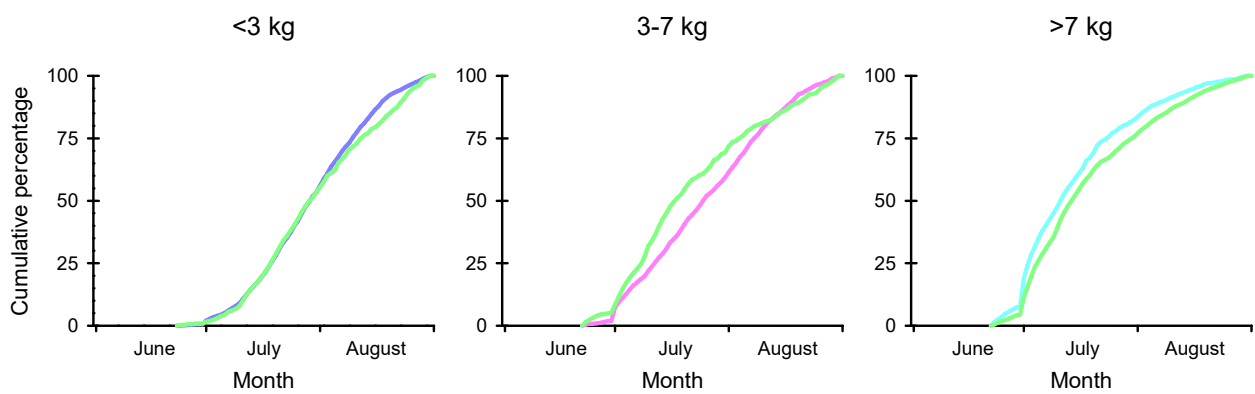


Figure 128. Cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Reisaelv (years 2013-2020 combined). Source: SSB

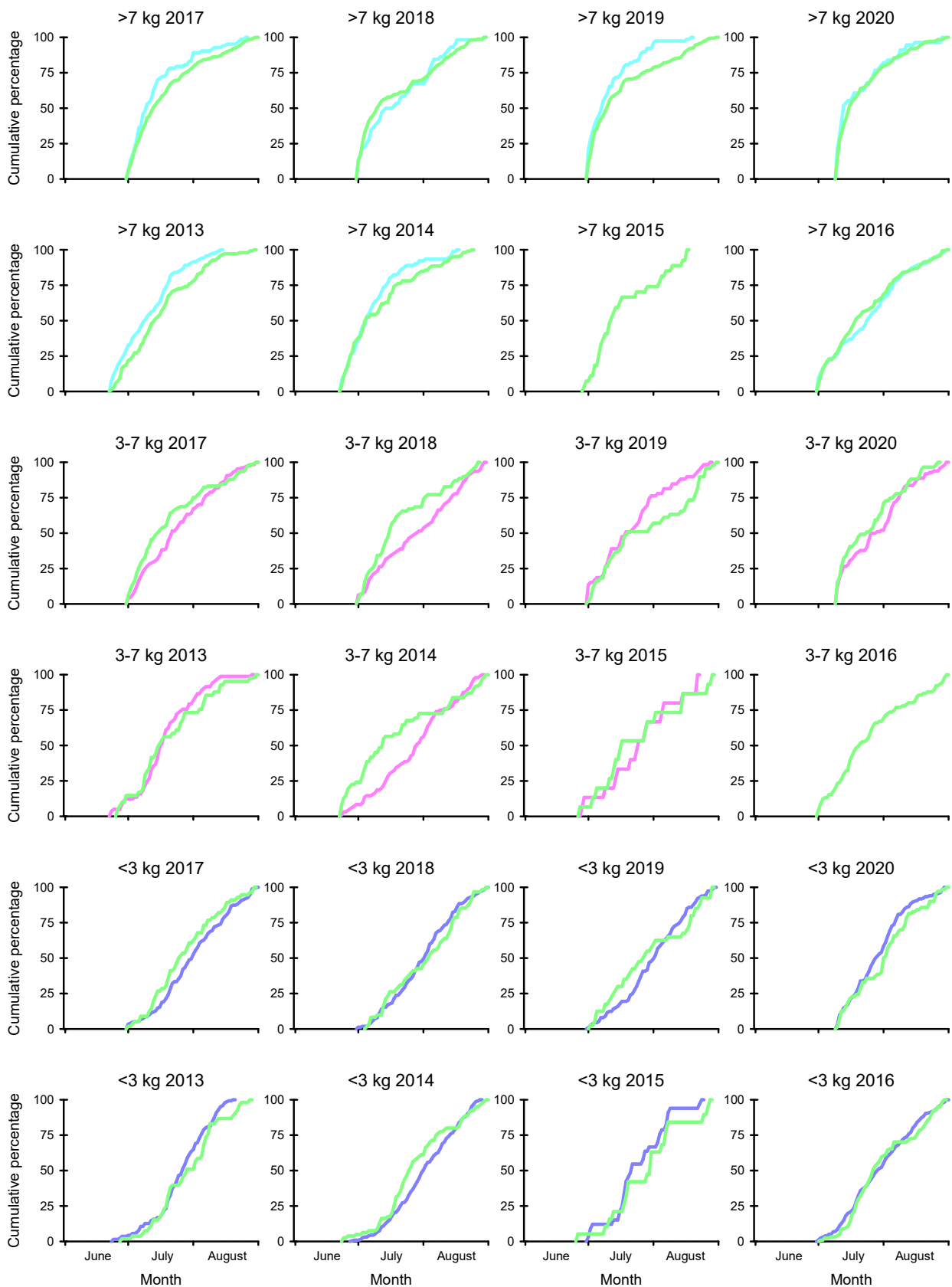


Figure 129. Annual cumulative catches of released (green curves) and killed salmon in three weight groups of fish in the River Reisaelv in the years 2013-2020. Source: SSB

48. Numbers, proportions and weight group differences in released and killed salmon within three size groups and cumulative catches in the rivers Målselv and Lysbotnelva.

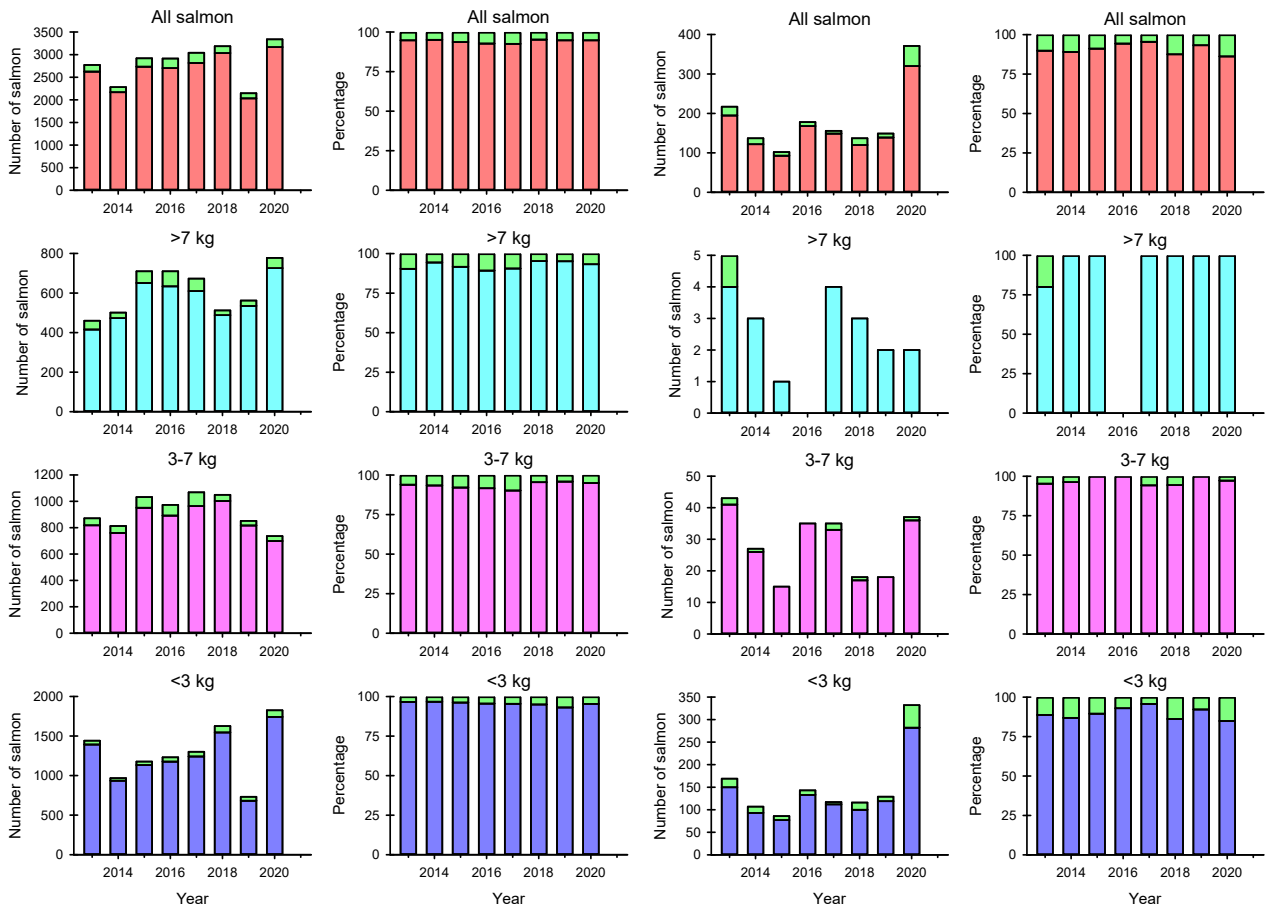


Figure 130. Annual killed and released salmon (green bars) and their proportions in three weight groups of salmon in the rivers Målselv (on the left) and Lysbotnelva (on the right). Source: SSB

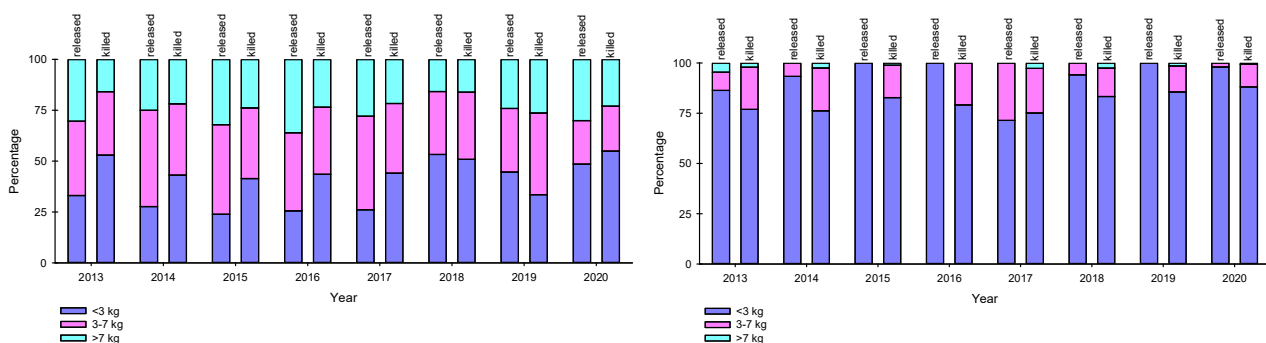


Figure 131. Proportions of three weight groups in annual salmon catches for released (left bar) and killed (right bar) fishes in the rivers Målselv (on the left) and Lysbotnelva (on the right). Source: SSB

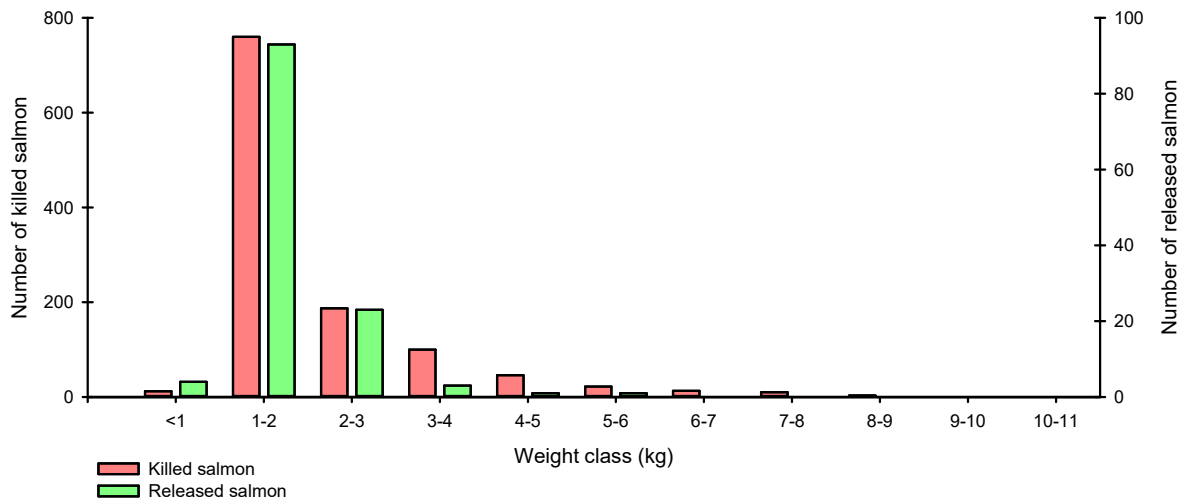
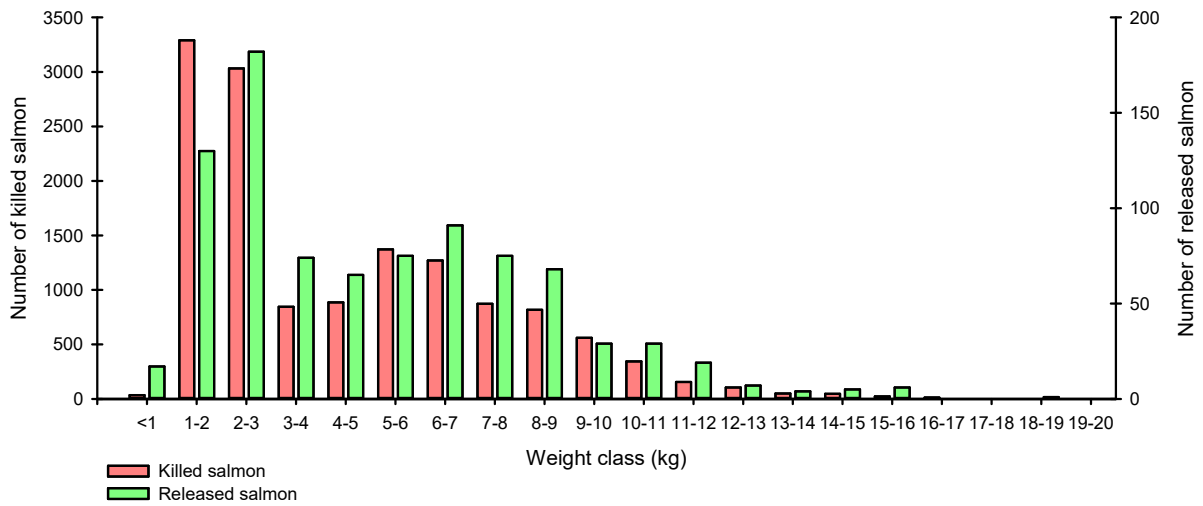


Figure 132. Size distributions of released and killed salmon between weight classes in the rivers Målselv (years 2014-2020 combined) (top graph) and Lysbotnelv (years 2014-2020 combined) (bottom graph). Source: SSB