

Table 6-1. Sampling periods for the collection of surf zone finfish during the baseline (1994-1996), nourishment (1997), and post-nourishment (1998) portions of the study period.

	1996	1997	1998	1999
1	Aug. 12-17	Aug. 4-7	Aug. 3-7	Aug. 9-12
2	Aug. 26-29	Aug. 19-23	Aug. 17-21	Aug. 23-25
3	Sept. 9-12	Sept. 2-4	---	---
4	Sept. 23-27	Sept. 15-17	Sept. 14-17	---
5	Oct. 7-12	Sept. 30-Oct. 3	Sept. 28-Oct. 1	Oct. 4-8
6	Oct. 26-27	Oct. 14,15,28,29	Oct. 15-17	Oct. 17-23

Table 6-2. Summary of the sample sizes of the number of fish with filled stomachs captured from 1996 to 1999 by size class and project area.

Area	Atlantic Silverside		Rough Silverside		Northern Kingfish		
	<60 mm	>60 mm	<60 mm	>60 mm	< 10 cm	10-15 cm	> 15 cm
1996							
Reference	1024	910	170	665	104		
Beach Nour.	685	461	201	608	31		
Total	4534	2858	707	3306	135		
1997							
Reference	787	1473	116	340	180	4	0
Beach Nour.	457	1146	173	189	574	61	1
Total	1244	2619	289	529	754	65	1
1998							
Reference	781	1730	49	63	266	215	23
Beach Nour.	1063	1012	38	136	277	69	5
Total	1844	2742	87	199	543	284	28
1999							
Reference	926	2000	114	52	60	33	28
Beach Nour.	1998	3705	216	0	141	90	33
Total	2924	5705	330	52	201	123	61

Table 6-3. Summary of tests for differences in the stomach contents of fish captured at Reference and Beach Nourishment stations in 1997. Observations indicate condition at Beach Nourishment stations as compared to Reference stations ($p \leq 0.01$).

Predator	Sampling Period					
	1	2	3	4	5	6
Kingfish	no data	< mysids > annelids	NS	NS	NS	NS
Atlantic Silversides	> prey biomass > amphipods	> crabs	NS	NS	> mole crabs	> fish prey for lg. silversides > mole crabs > amphipod > prey biomass

Atlantic Silversides Food Habits

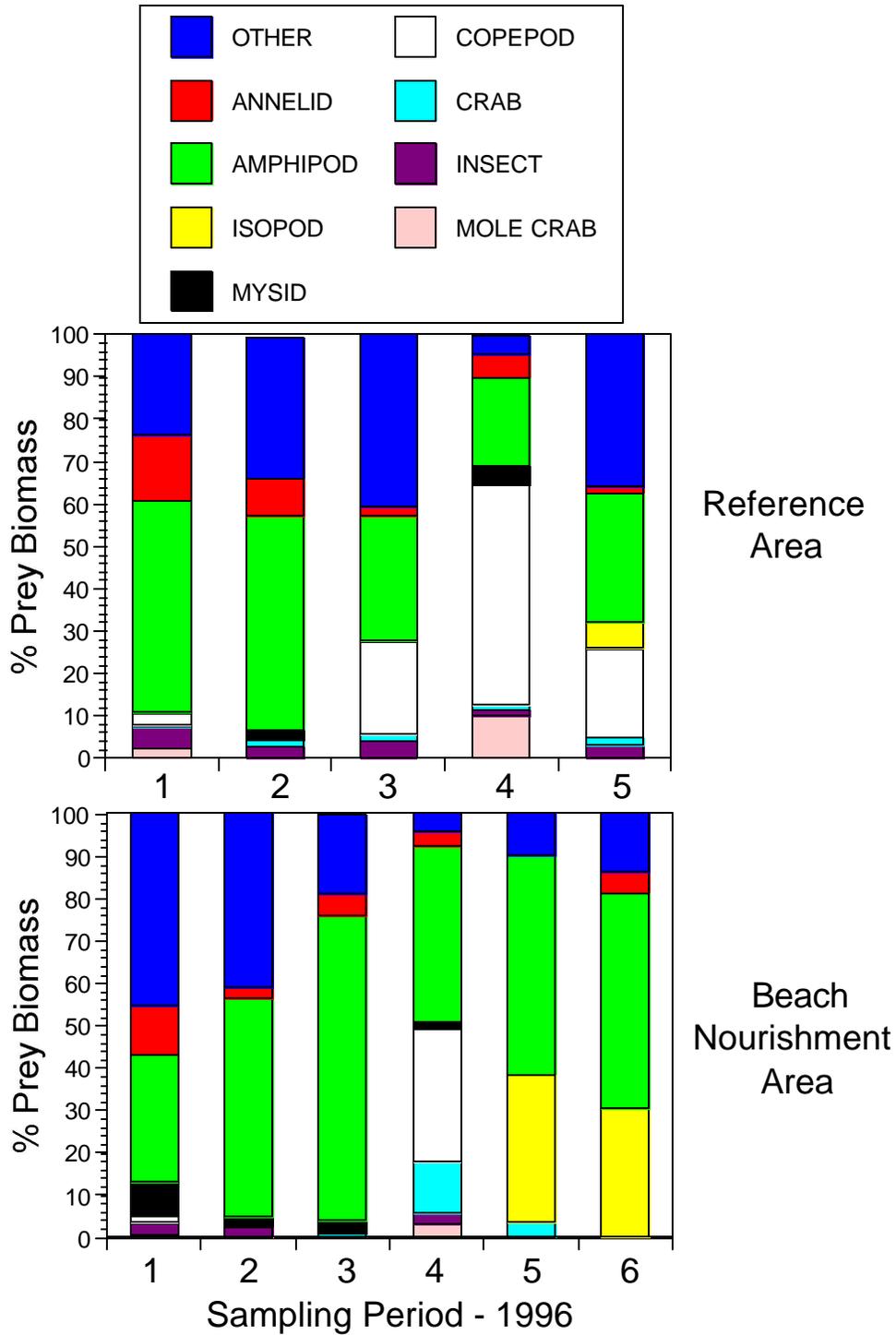


Figure 6-1. Stacked histogram bars depicting the percentage biomass of each prey item in Atlantic silversides captured in 1996 for every sampling period with sufficient sample sizes.

Atlantic Silverside Food Habits

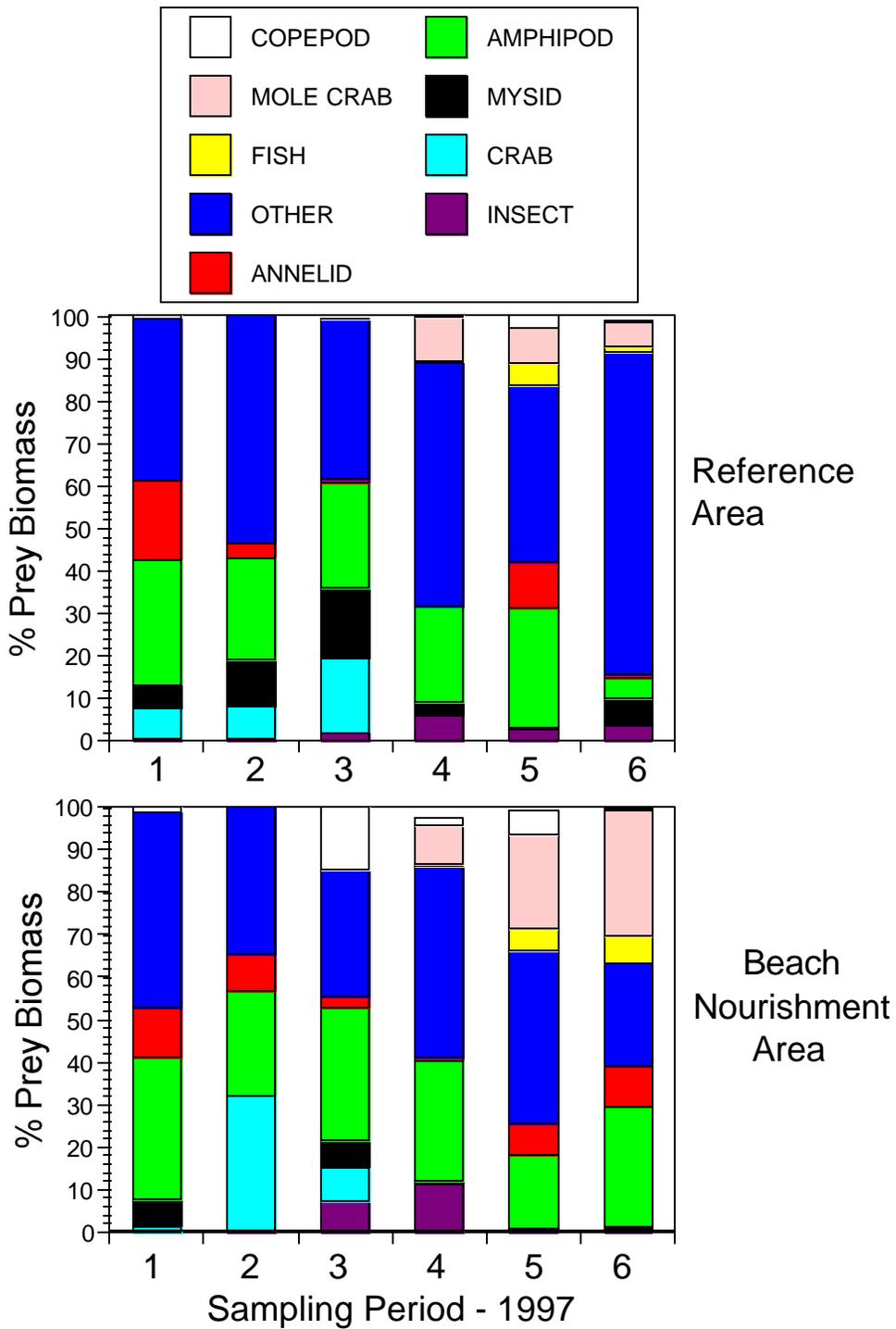


Figure 6-2. Stacked histogram bars depicting the percentage biomass of each prey item in Atlantic silversides captured in 1997 for every sampling period with sufficient sample sizes.

Atlantic Silverside Food Habits

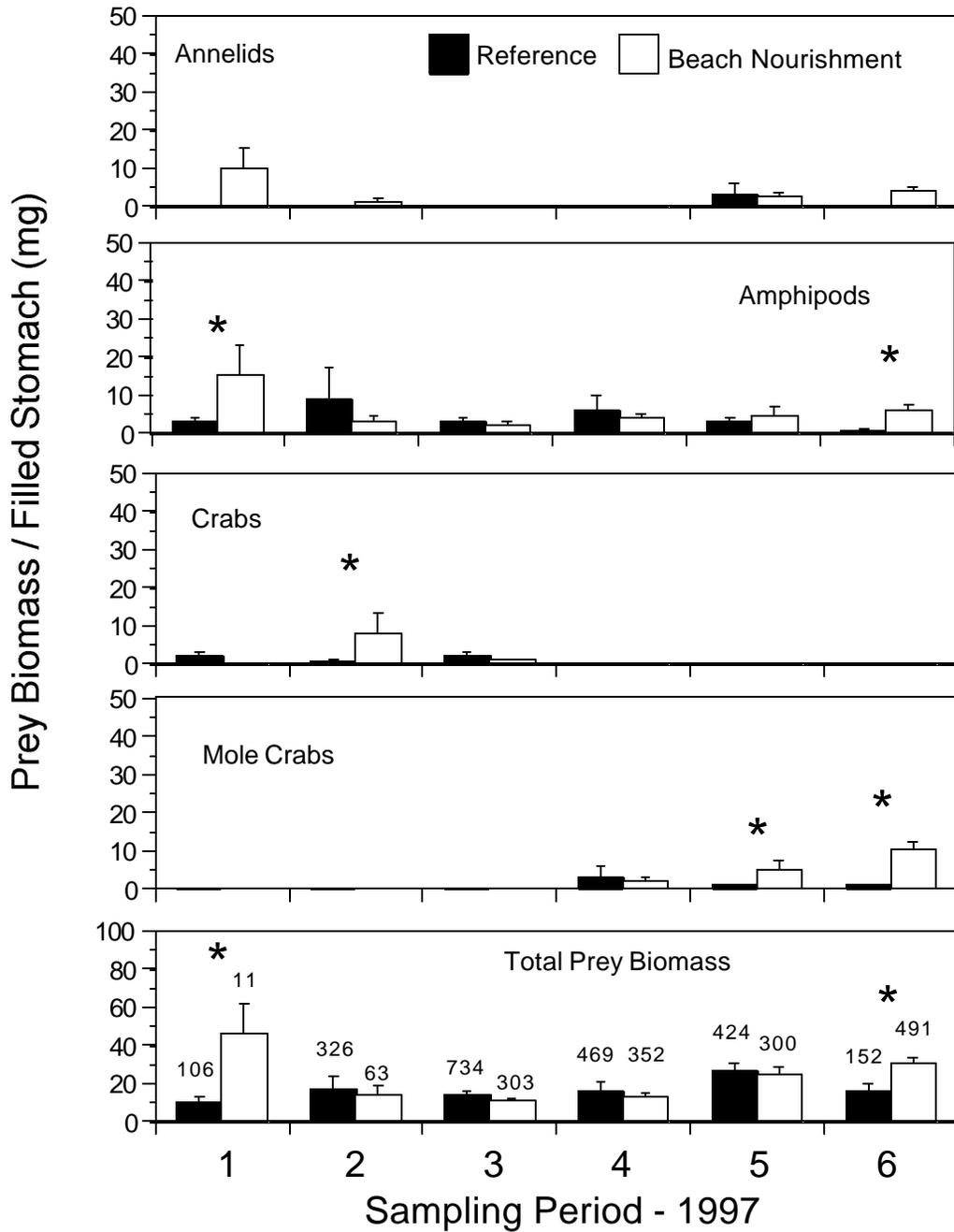


Figure 6-3. Average prey biomass (mg)/filled stomach by major prey category for Atlantic silversides captured at reference (black bars) and beach nourishment (white bars) stations in 1997. Numbers over the bars in the bottom graph indicate the number of filled stomachs analyzed. Asterisks indicate statistically significant results for that prey item and sampling period.

Atlantic Silversides Food Habits

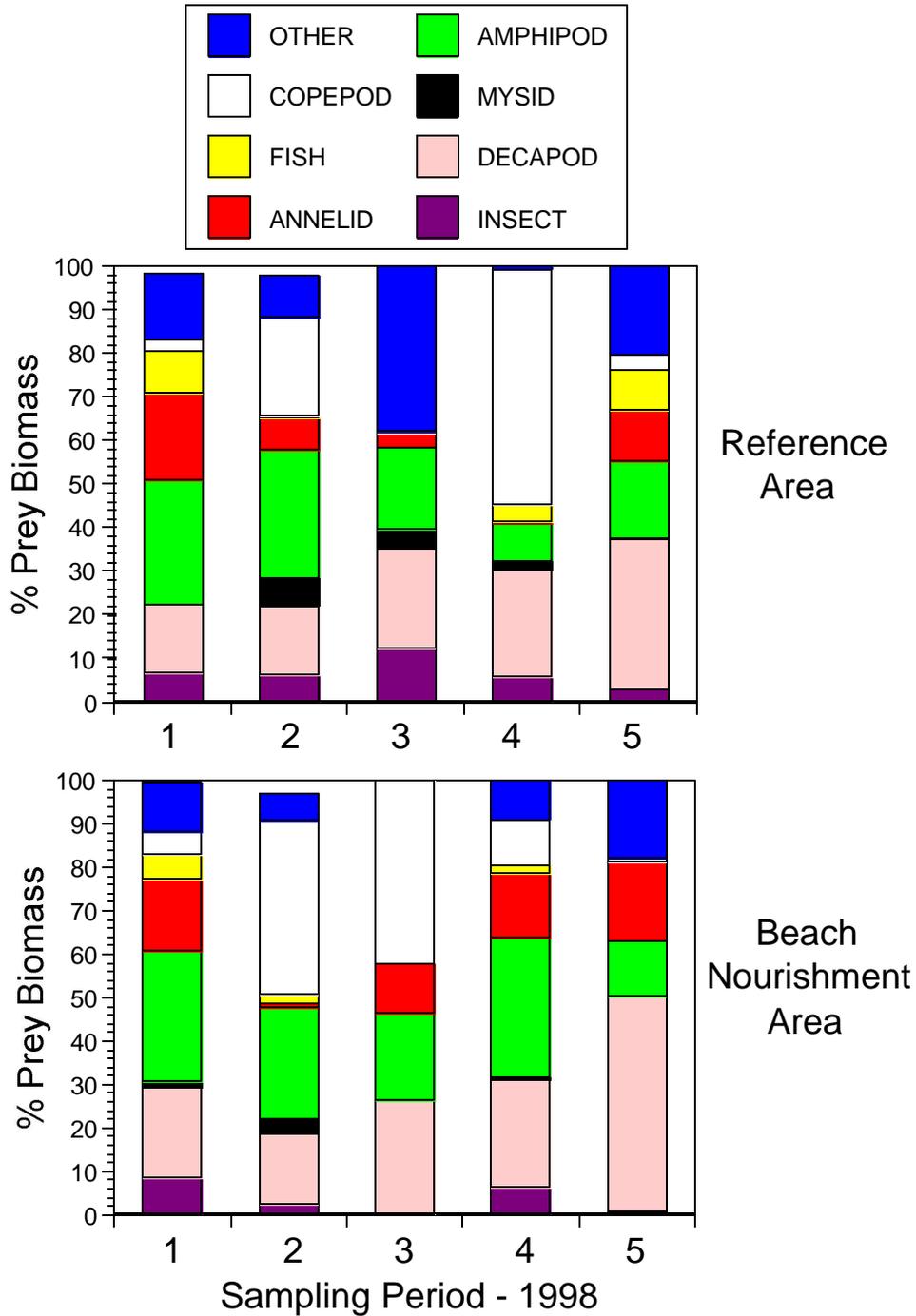


Figure 6-4. Stacked histogram bars depicting the percentage biomass of each prey item in Atlantic silversides captured in 1998 for every sampling period with sufficient sample sizes.

Atlantic Silversides Food Habits

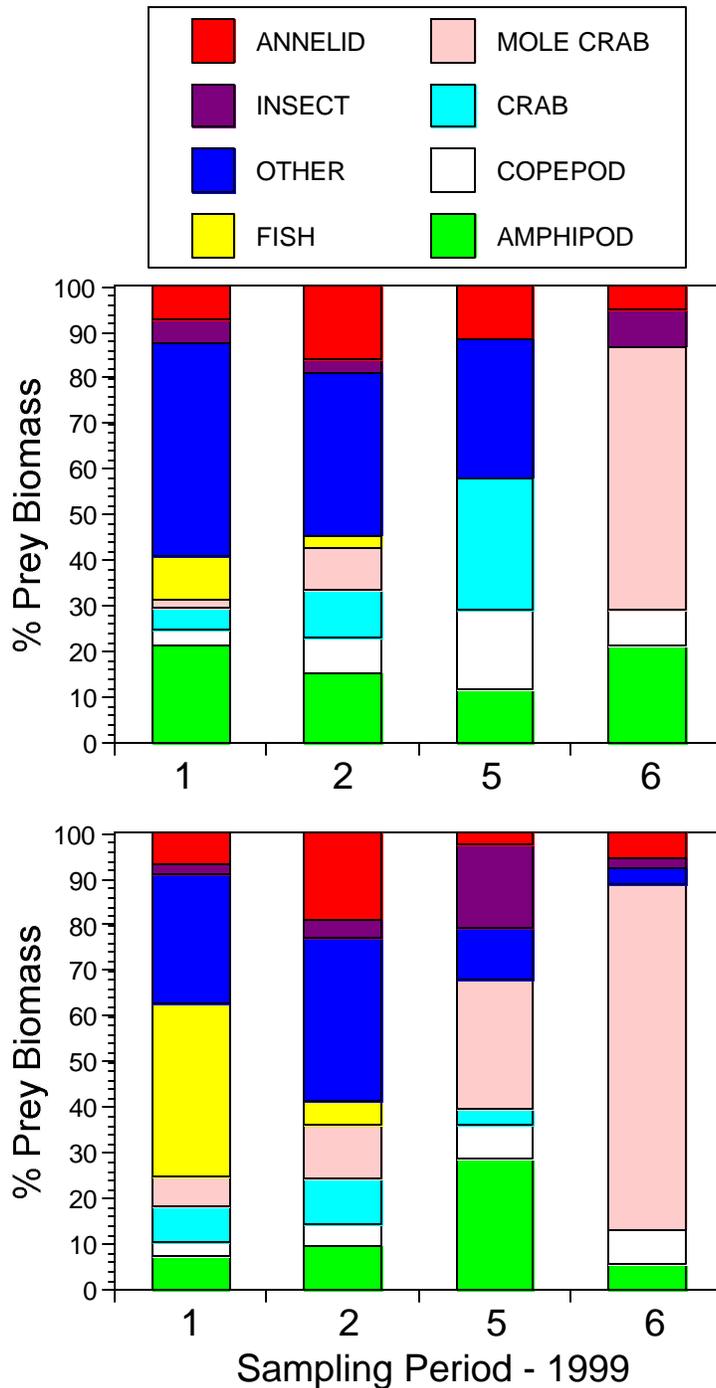


Figure 6-5. Stacked histogram bars depicting the percentage biomass of each prey item in Atlantic silversides captured in 1999 for every sampling period with sufficient sample sizes.

Atlantic Silverside Food Habits

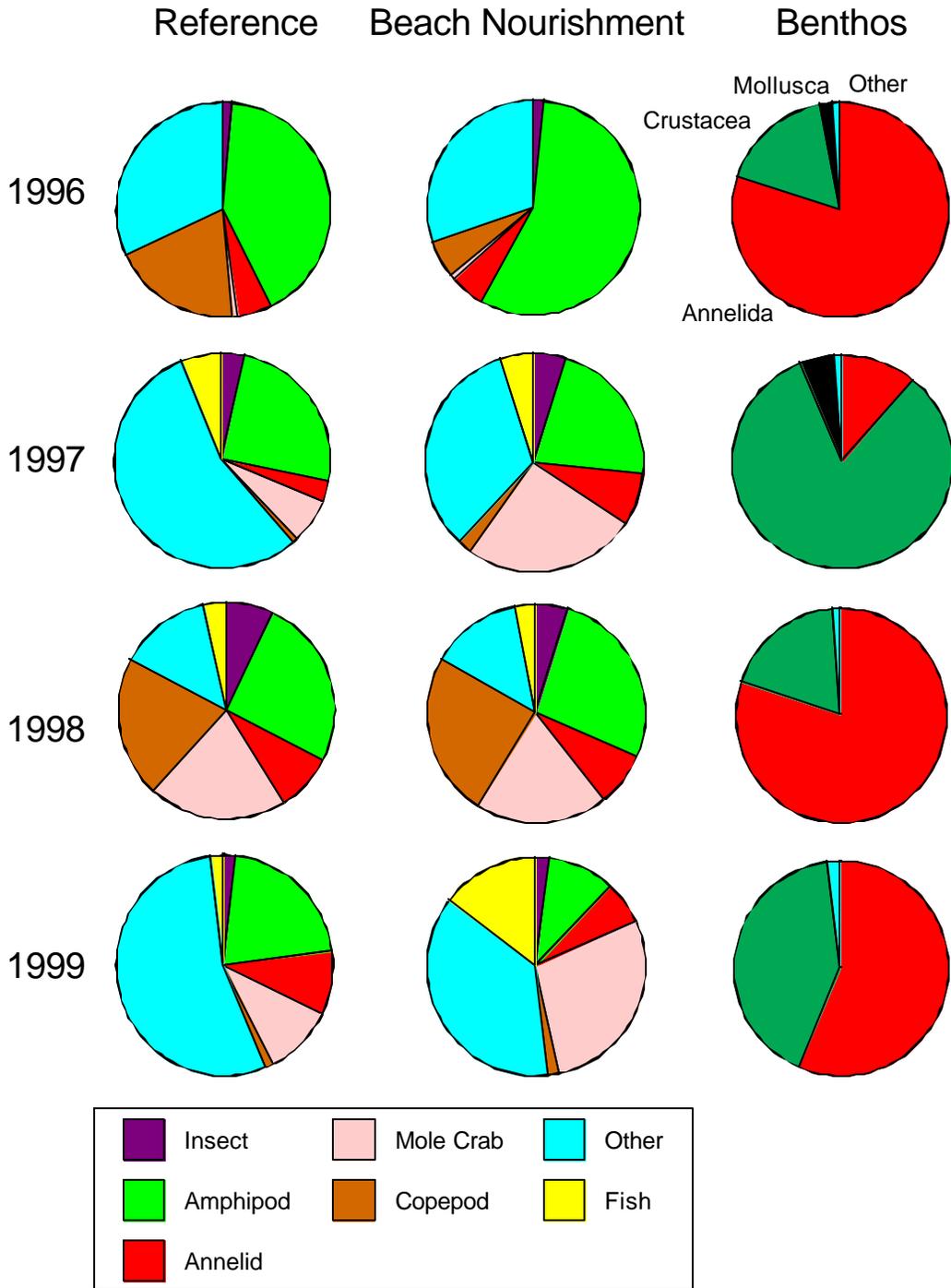


Figure 6-6. The overall annual prey consumption of Atlantic silversides in the Reference and Beach Nourishment Areas relative to the composition of the benthic prey biomass for each year.

Rough Silversides Food Habits

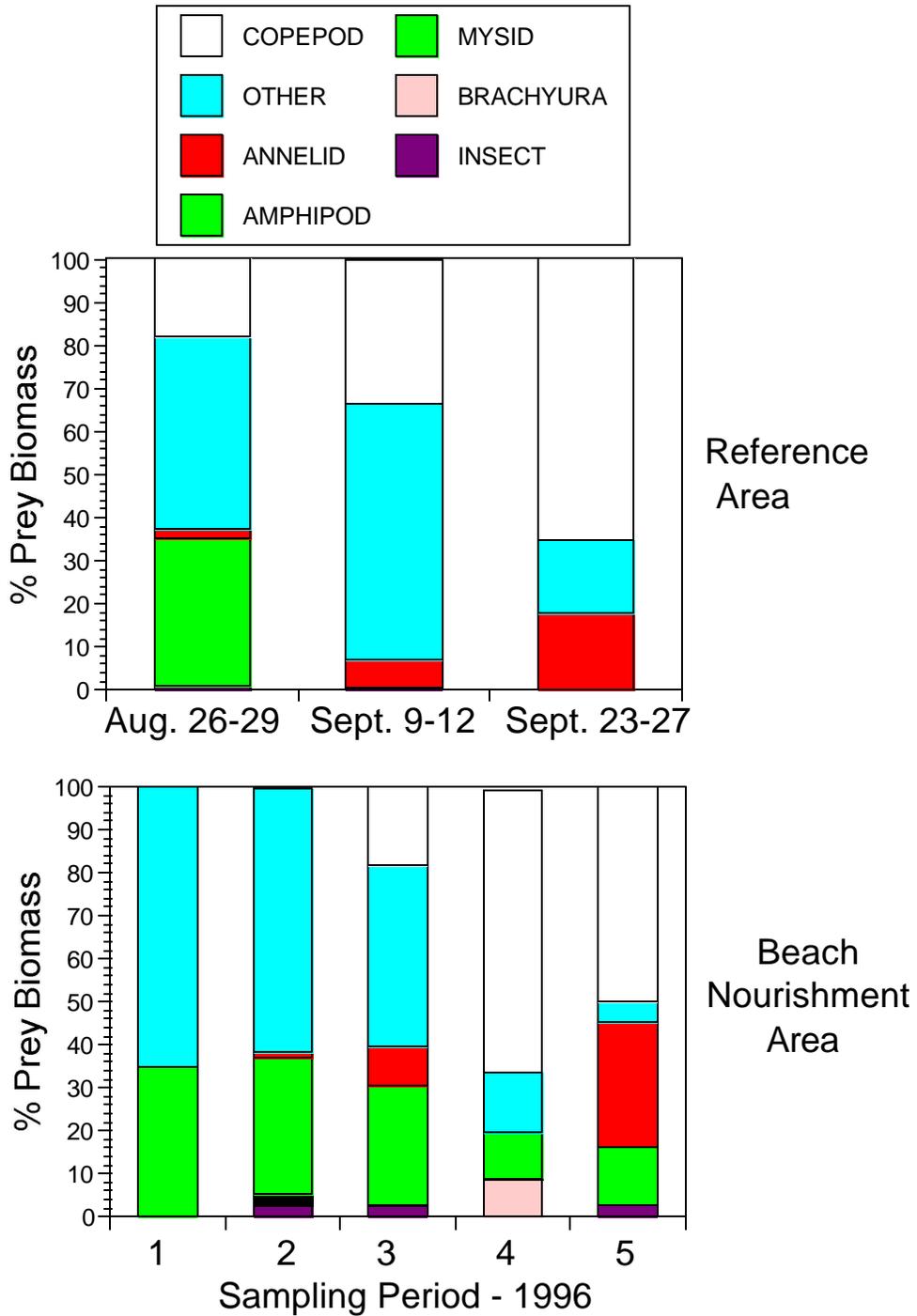


Figure 6-7. Stacked histogram bars depicting the percentage biomass of each prey item in rough silversides captured in 1996 for every sampling period with sufficient sample sizes.

Rough Silversides Food Habits

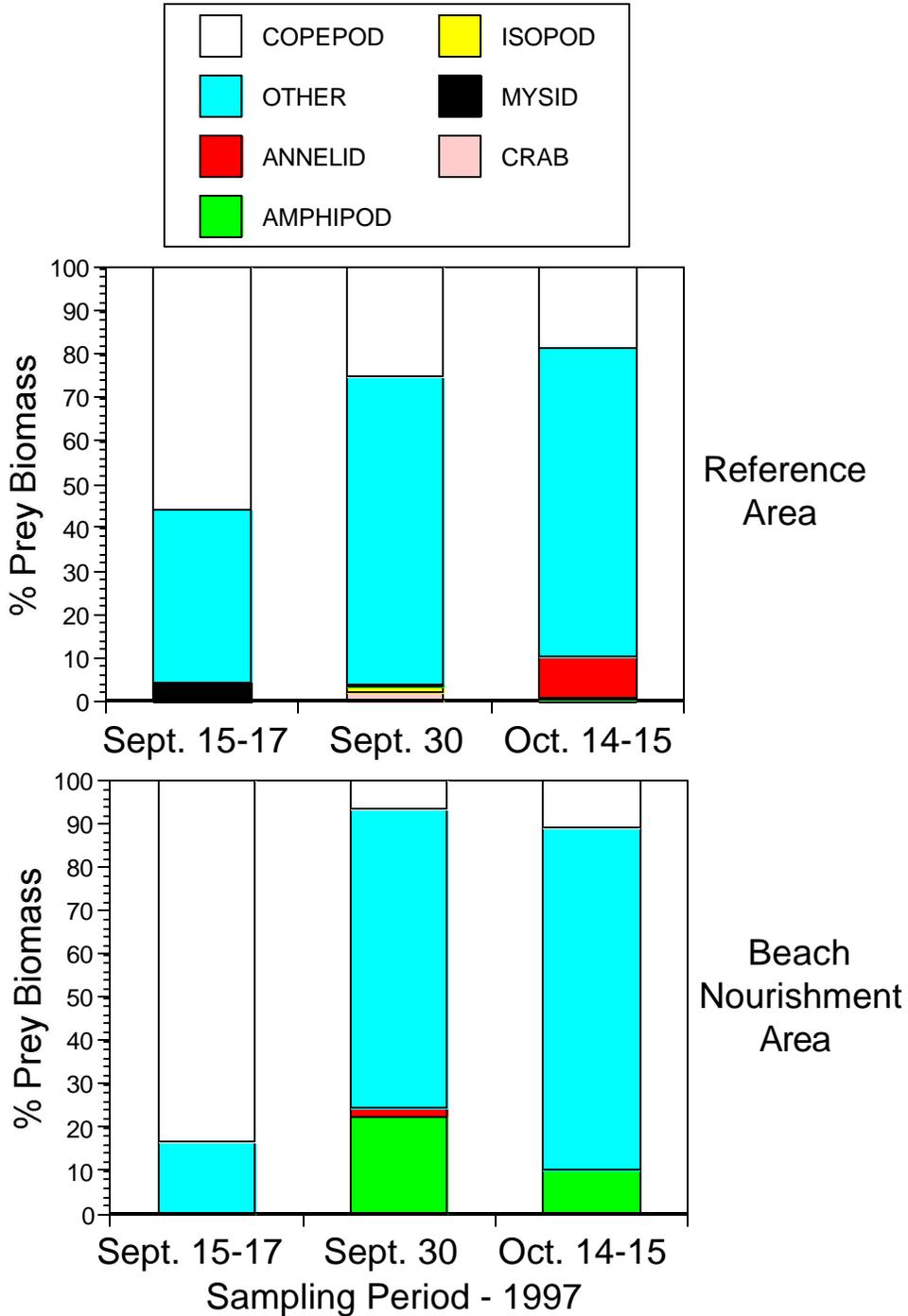


Figure 6-8. Stacked histogram bars depicting the percentage biomass of each prey item in rough silversides captured in 1997 for every sampling period with sufficient sample sizes.

Rough Silversides Food Habits

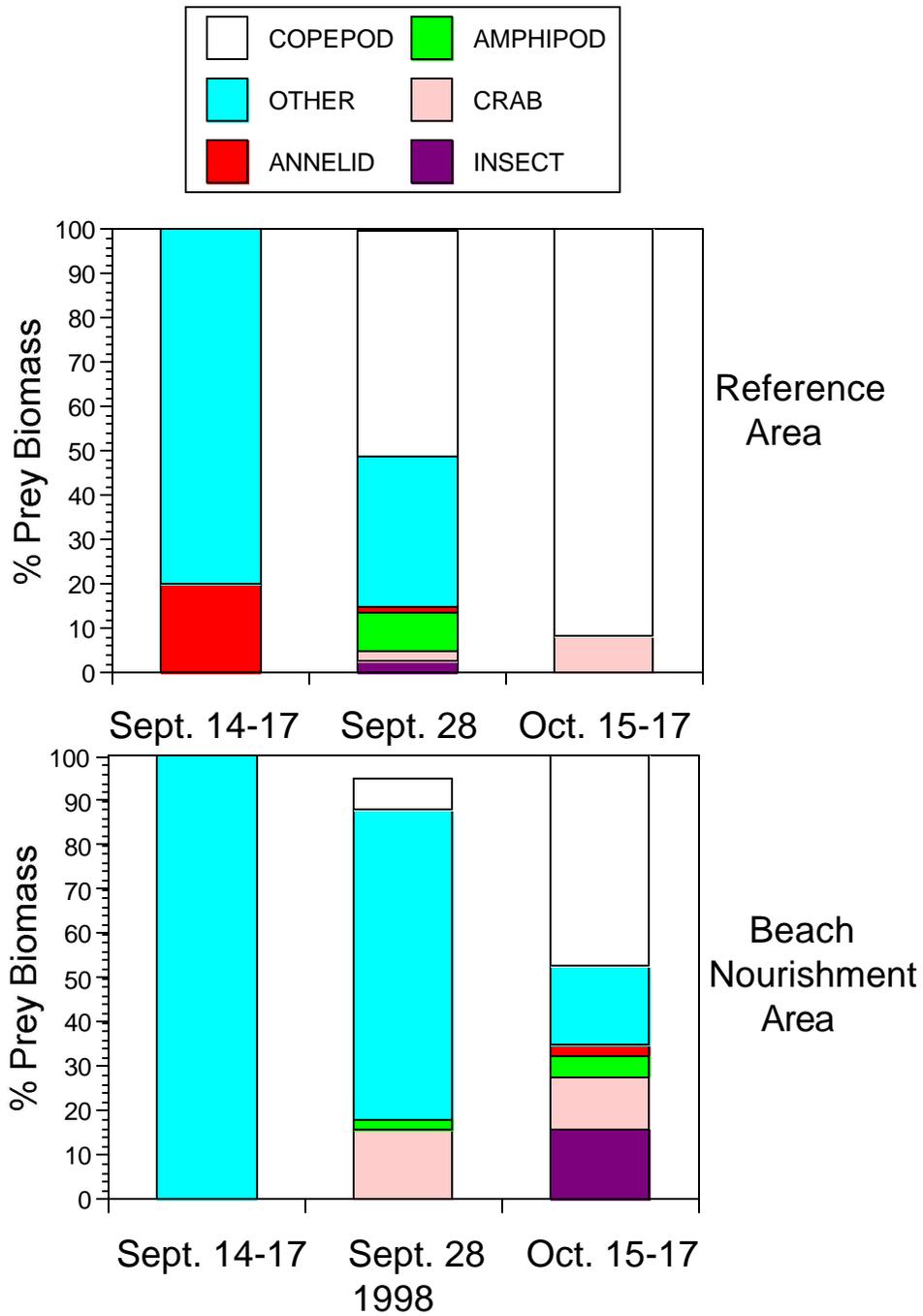


Figure 6-9. Stacked histogram bars depicting the percentage biomass of each prey item in rough silversides captured in 1998 for every sampling period with sufficient sample sizes.

Rough Silversides Food Habits

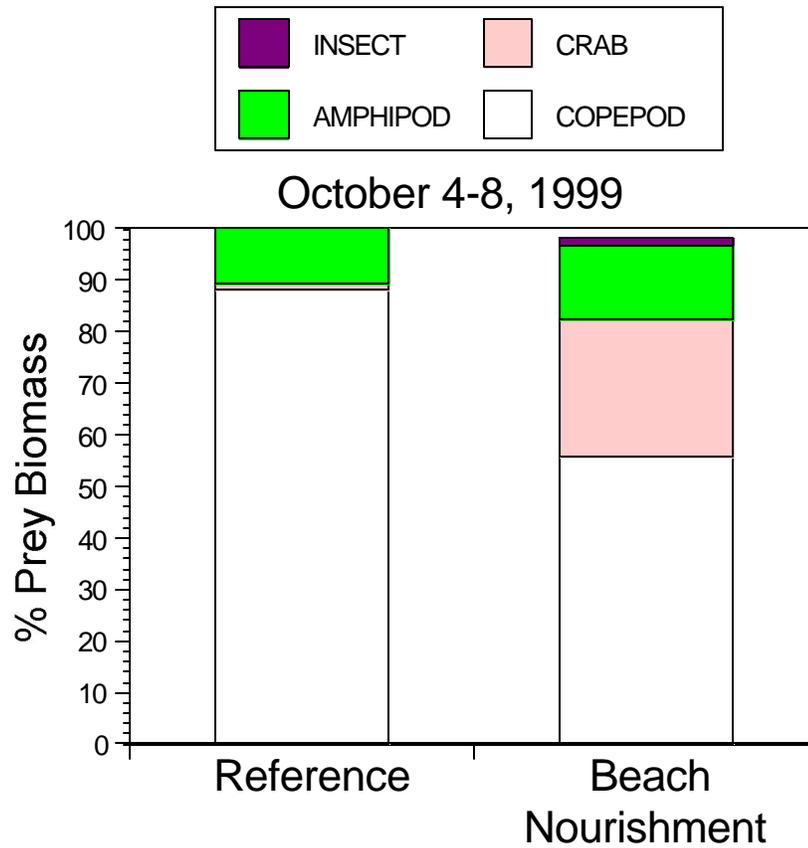


Figure 6-10. Stacked histogram bars depicting the percentage biomass of each prey item in rough silversides captured in 1999 for every sampling period with sufficient sample sizes.

Northern Kingfish Food Habits

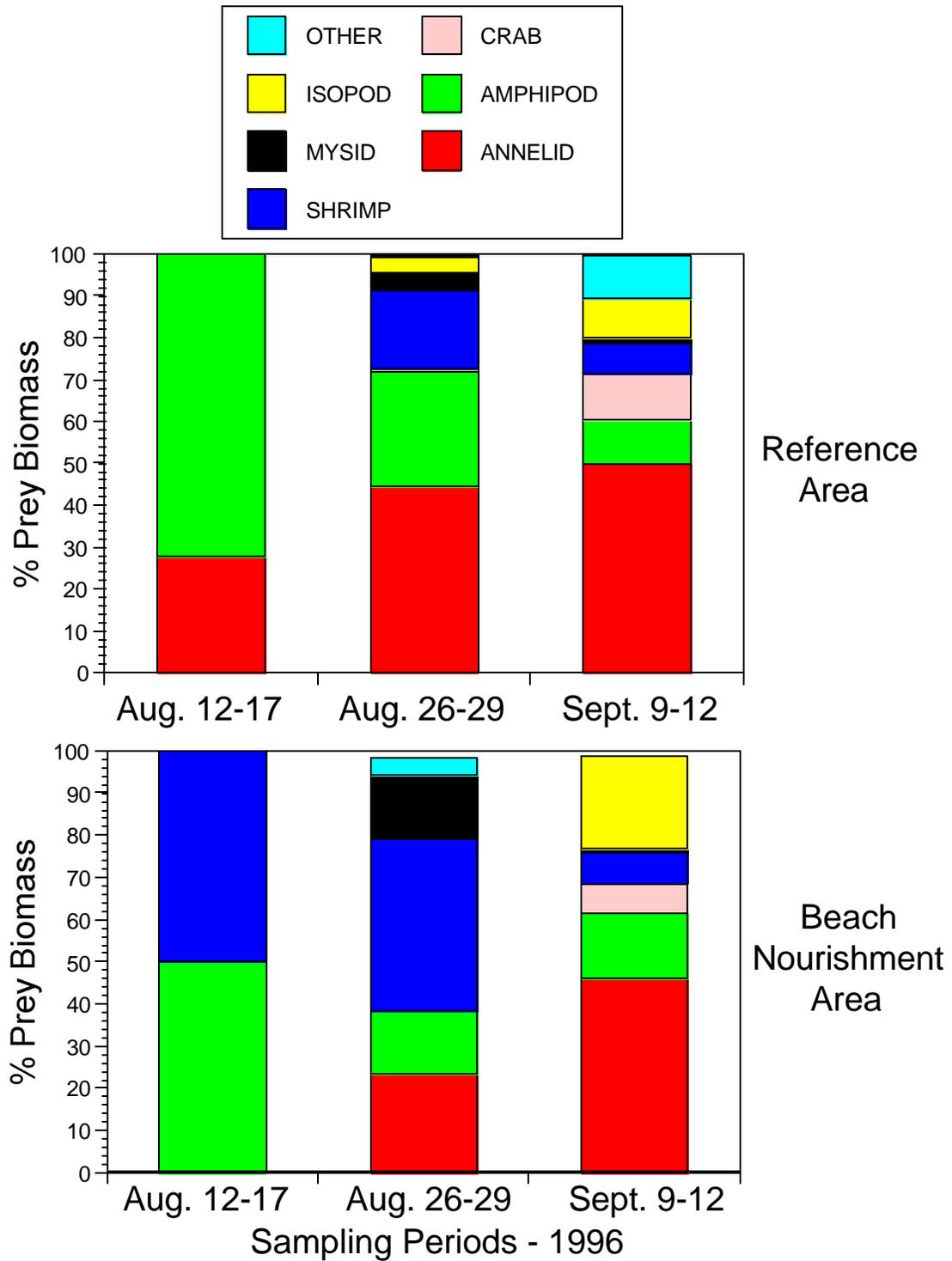


Figure 6-11. Stacked histogram bars depicting the percentage biomass of each prey item in northern kingfish captured in 1996 for every sampling period with sufficient sample sizes.

Northern Kingfish Food Habits

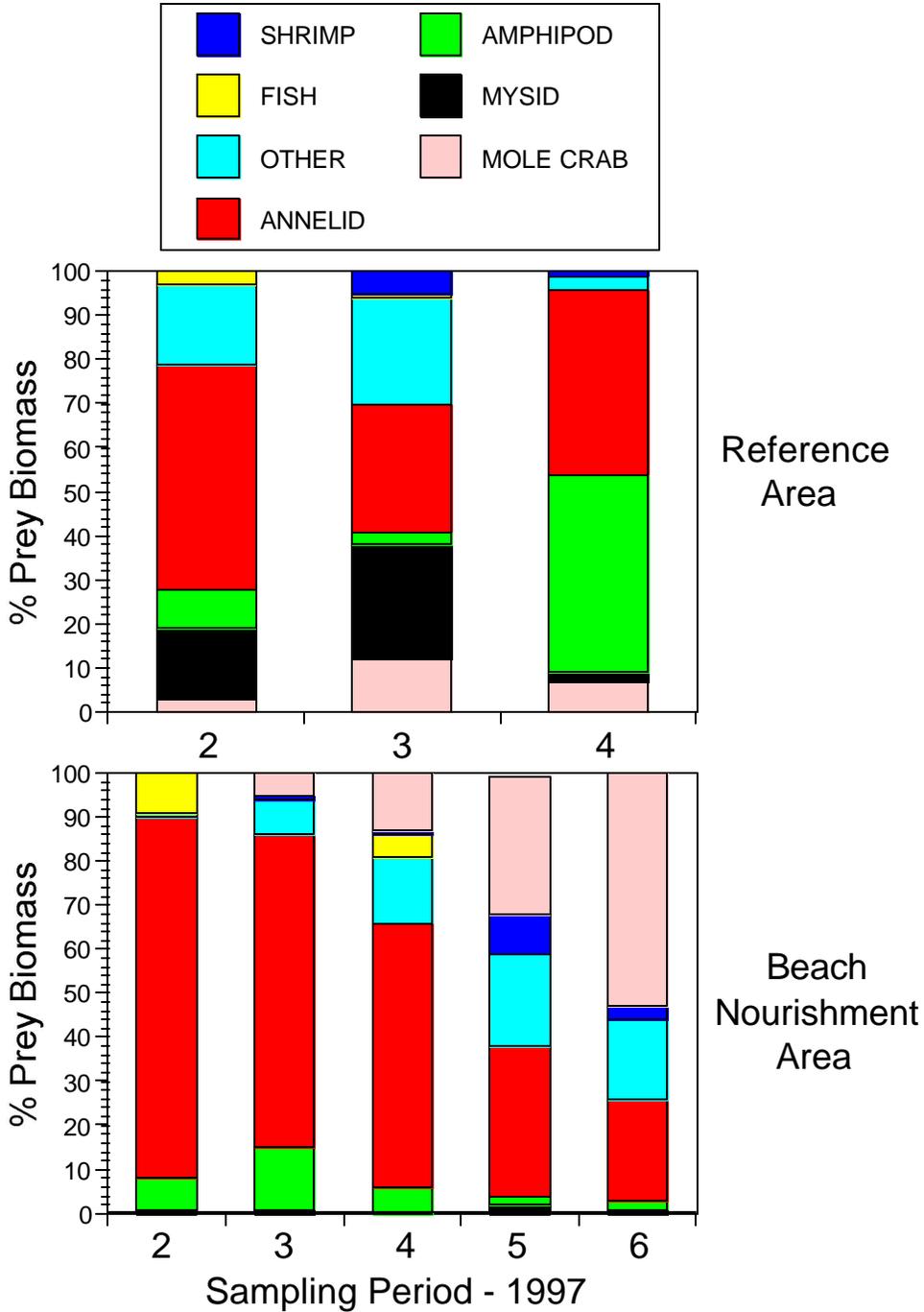


Figure 6-12. Stacked histogram bars depicting the percentage biomass of each prey item in northern kingfish captured in 1997 for every sampling period with sufficient sample sizes.

Northern Kingfish Food Habits

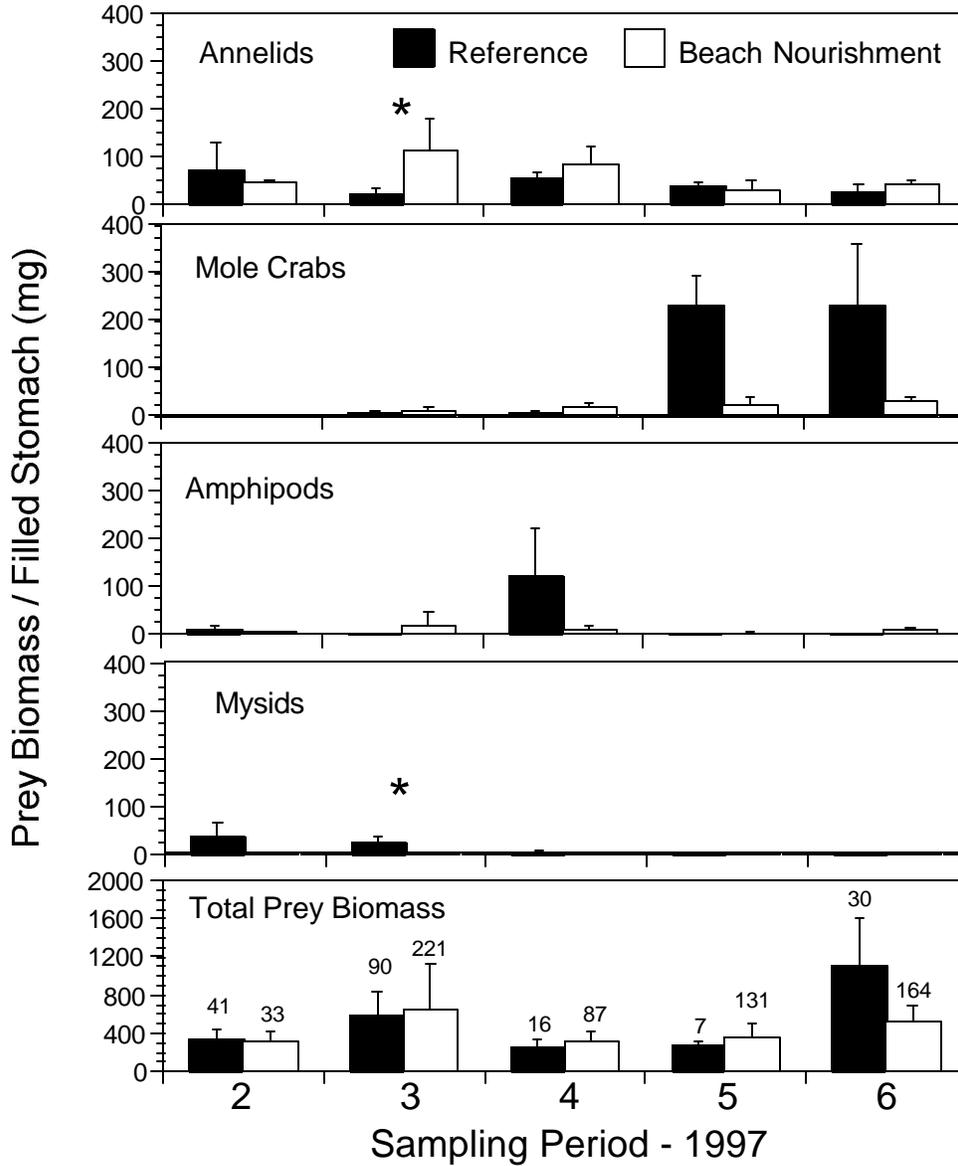


Figure 6-13. Average prey biomass (mg)/filled stomach by major prey category for northern kingfish captured at reference (black bars) and beach nourishment (white bars) stations in 1997. Numbers over the bars in the bottom graph indicate the number of filled stomachs analyzed. Asterisks indicate statistically significant results for that prey item and sampling period.

Northern Kingfish Food Habits

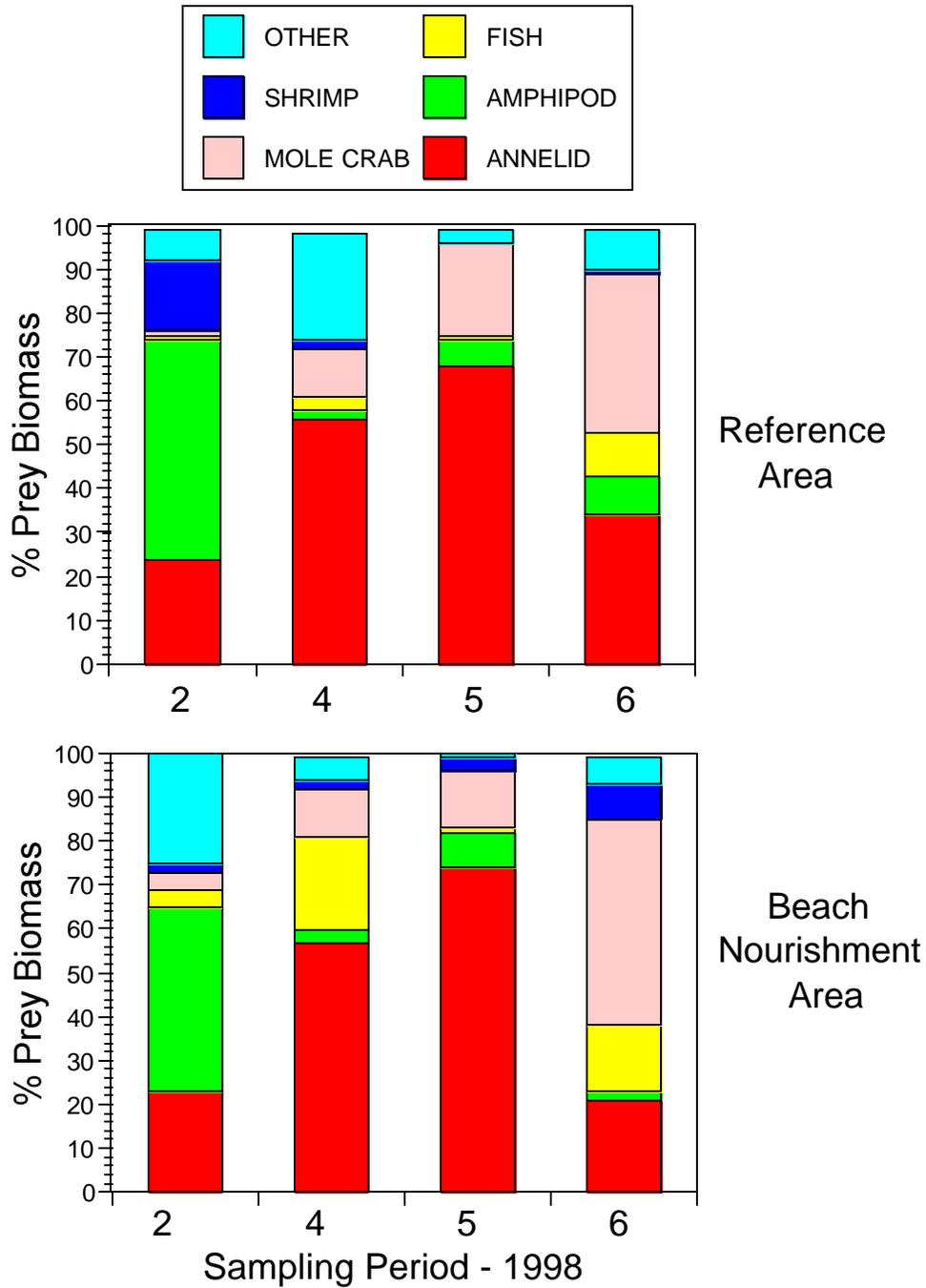
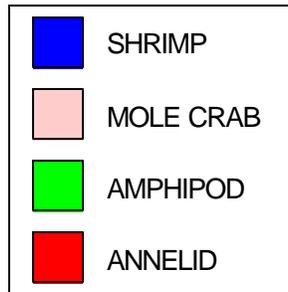


Figure 6-14. Stacked histogram bars depicting the percentage biomass of each prey item in northern kingfish captured in 1998 for every sampling period with sufficient sample sizes.

Northern Kingfish Food Habits



October 4-8, 1999

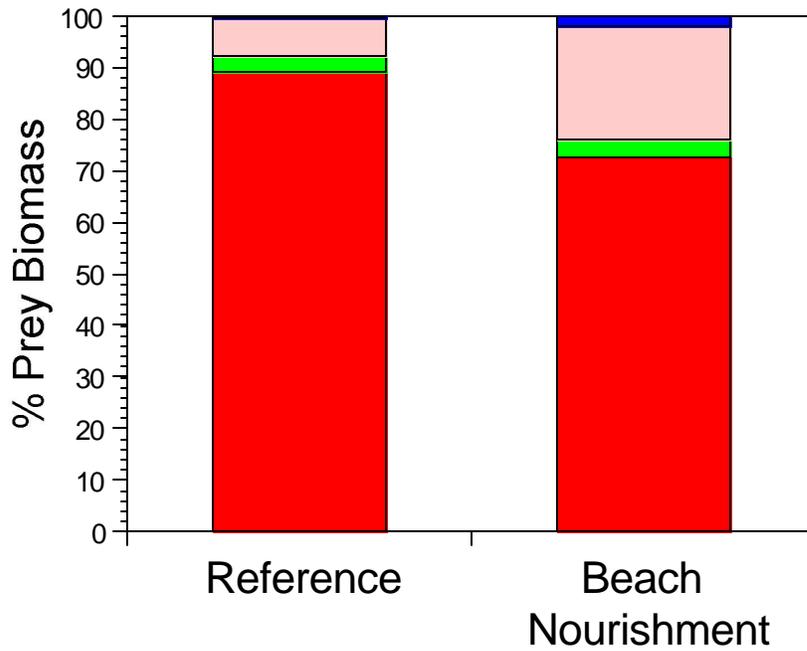


Figure 6-15. Stacked histogram bars depicting the percentage biomass of each prey item in northern kingfish captured in 1999 for every sampling period with sufficient sample sizes.