

## Supplementary material

**Table S1.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull (Deserta) and Audouin's gull pellets in the breeding season of 2014 and 2015. Sampling months and total fish landing quantities ( $N = t \text{ mo}^{-1}$ ) and their percentages by species are also shown.

	Breeding					
	2014 (May-Jun)			2015 (May-Jun)		
	Deserta	Audouin's gull	Landings	Deserta	Audouin's gull	Landings
	Diet	Diet		Diet	Diet	
N = 121	N = 182	N = 1,201	N = 105	N = 107	N = 1,489	
<b>Pelagic fish</b>	67.8	86.3	88.5	57.1	86.9	87.6
<i>Belone belone</i>	0.8	7.7	0.1	1.9	6.5	0.1
<i>Chelon</i> sp.	2.5	—	<0.1	2.9	—	<0.1
<i>Engraulis encrasicolus</i>	—	0.5	0.2	1.0	1.9	<0.1
<i>Gadiculus argenteus</i>	0.8	2.2	—	3.8	9.3	—
<i>Micromesistius poutassou</i>	19.0	7.7	3.5	22.9	23.4	1.0
<i>Myctophum</i> sp.	1.7	8.8	—	2.9	2.8	—
<i>Sardina pilchardus</i>	25.6	23.1	21.3	18.1	21.5	14.0
<i>Scomber</i> sp.	17.4	15.4	40.2	20.0	13.1	56.6
<i>Scomberosox saurus</i>	7.4	52.2	—	5.7	45.8	—
<i>Trachurus</i> sp.	18.2	6.0	22.9	10.5	9.3	15.7
<b>Demersal fish</b>	43.0	31.9	11.5	41.9	45.8	12.4
<i>Boops boops</i>	9.9	4.4	0.2	2.9	6.5	0.5
<i>Callionymus lyra</i>	—	—	—	—	—	—
<i>Cepola rubescens</i>	1.7	—	—	—	0.9	—
<i>Chelidonichthys</i> sp.	—	—	<0.1	—	—	0.1
<i>Coelorinchus</i> sp.	2.5	4.4	—	2.9	4.7	—
<i>Conger conger</i>	3.3	0.5	0.5	1.0	5.6	0.3
<i>Diplodus</i> sp.	14.9	19.2	1.7	18.1	19.6	1.1
<i>Galeus melastomus</i>	—	—	<0.1	—	—	<0.1
<i>Lepidotrigla cavillone</i>	—	—	<0.1	—	—	4.0
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	0.8	—	<0.1	2.9	1.9	0.1
<i>Malacocephalus laevis</i>	—	—	—	—	—	—
<i>Merluccius</i> sp.	6.6	2.7	1.5	6.7	2.8	1.6
<i>Microchirus</i> sp.	1.7	0.5	0.5	—	—	0.5
<i>Nezumia</i> sp.	—	—	—	—	—	—
<i>Phycis</i> sp.	—	—	0.1	2.9	—	0.1
<i>Sarpa salpa</i>	—	—	0.7	—	—	0.3
<i>Serranus</i> sp.	2.5	2.7	<0.1	4.8	13.1	<0.1
<i>Trachinus</i> sp.	—	—	0.1	—	—	0.1
<i>Trisopterus</i> sp.	—	—	<0.1	—	—	0.1
<b>Unidentified fish</b>	24.0	15.4	—	30.5	33.6	—
<b>Total fish</b>	89.3	100	100	73.3	100	100
<b>Marine invertebrates</b>	14.0	6.6	—	10.5	7.5	—
<b>Vegetal matter</b>	11.6	—	—	12.4	—	—
<b>Refuse</b>	14.9	0.5	—	29.5	1.9	—
<b>Others</b>	19.8	8.8	—	41.9	23.4	—

**Table S2.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull pellets in each season of 2016 at Berlenga and Pessegueiro Islands. Sampling months and total fish landing quantities ( $N = t \text{ mo}^{-1}$ ) and their percentages by species are also shown.

	2016							
	Berlenga				Pessegueiro			
	Pre-breeding (Feb-Mar)		Breeding (May-Jun)		Post-breeding (Aug)		Pre-breeding (Feb)	
	Diet	Landings	Diet	Landings	Diet	Landings	Diet	Landings
N = 77	N = 898	N = 106	N = 1,712	N = 31	N = 1,336	N = 29	N = 121	
<b>Pelagic fish</b>	—	71.4	7.5	85.7	16.1	77.8	13.8	67.3
<i>Belone belone</i>	—	—	—	—	—	—	6.9	—
<i>Chelon</i> sp.	—	<0.1	—	<0.1	—	<0.1	—	0.5
<i>Engraulis encrasicolus</i>	—	<0.1	—	<0.1	—	0.1	—	—
<i>Gadiculus argenteus</i>	—	—	—	—	—	—	—	—
<i>Micromesistius poutassou</i>	—	0.1	1.9	0.2	3.2	0.3	—	45.4
<i>Myctophum</i> sp.	—	—	—	—	—	—	—	—
<i>Sardina pilchardus</i>	—	<0.1	4.7	30.0	9.7	24.1	3.4	—
<i>Scomber</i> sp.	—	4.2	—	9.4	—	10.3	3.4	4.2
<i>Scomberosox saurus</i>	—	—	—	<0.1	—	—	—	—
<i>Trachurus</i> sp.	—	55.8	1.9	45.1	6.5	42.1	3.4	17.1
<b>Demersal fish</b>	1.3	28.6	9.4	14.3	—	22.2	13.8	32.7
<i>Boops boops</i>	—	0.8	3.8	0.1	—	0.1	—	5.3
<i>Callionymus lyra</i>	—	—	—	—	—	—	—	—
<i>Cepola rubescens</i>	—	—	—	—	—	—	—	—
<i>Chelidonichthys</i> sp.	—	0.4	—	0.2	—	0.2	3.4	0.1
<i>Coelorinchus</i> sp.	—	—	—	—	—	—	—	—
<i>Conger conger</i>	—	1.1	0.9	1.7	—	3.1	—	1.5
<i>Diplodus</i> sp.	—	1.3	0.9	0.3	—	0.3	—	2.4
<i>Galeus melastomus</i>	—	0.1	—	<0.1	—	0.1	—	—
<i>Lepidotrigla cavillone</i>	—	0.4	—	0.1	—	0.1	6.9	—
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	—	—	—	—	—	—	—	<0.1
<i>Malacocephalus laevis</i>	—	—	—	—	—	—	—	—
<i>Merluccius</i> sp.	—	3.7	1.9	2.8	—	3.9	—	0.6
<i>Microchirus</i> sp.	—	0.2	—	0.2	—	0.2	3.4	1.2
<i>Nezumia</i> sp.	—	—	—	—	—	—	—	—
<i>Phycis</i> sp.	—	0.3	—	0.4	—	0.6	—	0.4
<i>Sarpa salpa</i>	—	<0.1	—	0.1	—	0.1	—	0.1
<i>Serranus</i> sp.	—	<0.1	1.9	<0.1	—	0.1	—	—
<i>Trachinus</i> sp.	—	<0.1	—	<0.1	—	<0.1	—	<0.1
<i>Trisopterus</i> sp.	1.3	2.6	2.8	1.8	—	2.7	—	0.7
<b>Unidentified fish</b>	2.6	—	8.5	—	—	—	13.8	—
<b>Total fish</b>	3.9	100	21.7	100	16.1	100	31.0	100
<b>Marine invertebrates</b>	88.3	—	90.6	—	83.9	—	86.2	—
<b>Vegetal matter</b>	10.4	—	2.8	—	6.5	—	3.4	—
<b>Refuse</b>	15.6	—	8.5	—	22.6	—	—	—
<b>Others</b>	5.2	—	9.4	—	6.5	—	—	—

**Table S3.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull pellets in each season of 2016 at Deserta Island. Sampling months and total fish landing quantities ( $N = t \text{ mo}^{-1}$ ) and their percentages by species are also shown.

	2016					
	Deserta					
	Pre-breeding (Feb-Mar-Apr)		Breeding (May)		Post-breeding (Sep)	
	Diet	Landings	Diet	Landings	Diet	Landings
	N = 224	N = 894	N = 163	N = 1,315	N = 112	N = 1,408
<b>Pelagic fish</b>	47.8	80.2	60.7	88.4	68.8	84.8
<i>Belone belone</i>	0.4	<0.1	3.7	0.1	—	<0.1
<i>Chelon</i> sp.	8.5	0.1	5.5	—	2.7	<0.1
<i>Engraulis encrasicolus</i>	—	0.5	0.6	<0.1	—	<0.1
<i>Gadiculus argenteus</i>	0.4	—	3.7	—	1.8	—
<i>Micromesistius poutassou</i>	6.7	1.6	22.1	2.3	40.2	1.3
<i>Myctophum</i> sp.	0.9	—	—	—	—	—
<i>Sardina pilchardus</i>	24.1	0.3	11.7	27.2	8.9	9.9
<i>Scomber</i> sp.	9.8	50.9	9.8	44.4	8.9	48.0
<i>Scomberosox saurus</i>	0.4	—	11.7	—	—	—
<i>Trachurus</i> sp.	14.3	26.8	23.3	14.4	27.7	14.1
<b>Demersal fish</b>	64.3	19.8	36.2	11.6	44.6	15.2
<i>Boops boops</i>	8.9	2.2	3.7	0.8	8.0	0.6
<i>Callionymus lyra</i>	—	—	—	—	—	—
<i>Cepola rubescens</i>	0.4	—	—	—	—	—
<i>Chelidonichthys</i> sp.	—	0.1	—	0.1	0.9	<0.1
<i>Coelorinchus</i> sp.	0.4	—	—	—	—	—
<i>Conger conger</i>	2.7	0.4	2.5	0.2	0.9	0.5
<i>Diplodus</i> sp.	37.9	2.6	10.4	0.8	10.7	1.8
<i>Galeus melastomus</i>	0.9	<0.1	0.6	—	—	<0.1
<i>Lepidotrigla cavillone</i>	—	<0.1	—	<0.1	0.9	<0.1
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	0.4	0.1	0.6	<0.1	0.9	<0.1
<i>Malacocephalus laevis</i>	1.3	—	1.2	—	6.3	—
<i>Merluccius</i> sp.	4.5	2.1	1.8	1.9	8.0	2.7
<i>Microchirus</i> sp.	—	1.2	—	0.6	0.9	1.1
<i>Nezumia</i> sp.	—	—	—	—	0.9	—
<i>Phycis</i> sp.	0.9	0.2	0.6	0.1	0.9	0.2
<i>Sarpa salpa</i>	4.0	0.5	1.2	0.5	0.9	0.4
<i>Serranus</i> sp.	3.1	<0.1	5.5	<0.1	0.9	<0.1
<i>Trachinus</i> sp.	—	0.1	—	0.1	6.3	0.1
<i>Trisopterus</i> sp.	0.4	0.1	0.6	<0.1	0.9	0.1
<b>Unidentified fish</b>	24.6	—	27.0	—	16.1	—
<b>Total fish</b>	93.3	100	80.4	100	94.6	100
<b>Marine invertebrates</b>	6.7	—	19.6	—	3.6	—
<b>Vegetal matter</b>	13.8	—	13.5	—	—	—
<b>Refuse</b>	12.9	—	19.0	—	2.7	—
<b>Others</b>	18.3	—	17.8	—	8.0	—

**Table S4.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in Audouin's gull pellets in each season of 2016. Sampling months and total fish landing quantities (N = t mo<sup>-1</sup>) and their percentages by species are also shown.

	2016					
	Audouin's gull					
	Pre-breeding (Mar-Apr)		Breeding (May)		Post-breeding (Sep)	
	Diet	Landings	Diet	Landings	Diet	Landings
	N = 32	N = 1,062	N = 279	N = 1,315	N = 117	N = 1,408
<b>Pelagic fish</b>	81.3	81.8	93.5	88.4	85.5	84.8
<i>Belone belone</i>	12.5	<0.1	7.2	0.1	2.6	<0.1
<i>Chelon</i> sp.	—	0.1	—	—	—	<0.1
<i>Engraulis encrasicolus</i>	—	0.3	3.2	<0.1	0.9	<0.1
<i>Gadiculus argenteus</i>	12.5	—	3.9	—	4.3	—
<i>Micromesistius poutassou</i>	25.0	2.0	19.4	2.3	41.9	1.3
<i>Myctophum</i> sp.	15.6	—	2.2	—	—	—
<i>Sardina pilchardus</i>	28.1	0.3	1.8	27.2	4.3	9.9
<i>Scomber</i> sp.	9.4	56.2	3.2	44.4	15.4	48.0
<i>Scomberosox saurus</i>	12.5	—	84.2	—	29.9	—
<i>Trachurus</i> sp.	12.5	22.9	2.5	14.4	7.7	14.1
<b>Demersal fish</b>	28.1	18.2	19.0	11.6	37.6	15.2
<i>Boops boops</i>	3.1	2.2	1.4	0.8	6.8	0.6
<i>Callionymus lyra</i>	—	—	—	—	—	—
<i>Cepola rubescens</i>	—	—	0.4	—	—	—
<i>Chelidonichthys</i> sp.	—	0.1	—	0.1	—	<0.1
<i>Coelorinchus</i> sp.	—	—	0.4	—	1.7	—
<i>Conger conger</i>	—	0.4	3.9	0.2	1.7	0.5
<i>Diplodus</i> sp.	12.5	2.6	5.4	0.8	19.7	1.8
<i>Galeus melastomus</i>	—	<0.1	—	—	—	<0.1
<i>Lepidotrigla cavillone</i>	—	<0.1	—	<0.1	—	<0.1
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	—	0.2	—	<0.1	—	<0.1
<i>Malacocephalus laevis</i>	3.1	—	1.4	—	1.7	—
<i>Merluccius</i> sp.	—	2.0	2.9	1.9	0.9	2.7
<i>Microchirus</i> sp.	—	0.9	—	0.6	—	1.1
<i>Nezumia</i> sp.	—	—	—	—	—	—
<i>Phycis</i> sp.	—	0.2	—	0.1	—	0.2
<i>Sarpa salpa</i>	—	0.5	—	0.5	—	0.4
<i>Serranus</i> sp.	—	<0.1	4.3	<0.1	—	<0.1
<i>Trachinus</i> sp.	—	0.1	—	0.1	—	0.1
<i>Trisopterus</i> sp.	3.1	0.1	0.4	<0.1	—	0.1
<b>Unidentified fish</b>	43.8	—	24.0	—	11.1	—
<b>Total fish</b>	93.8	100	97.1	100	100	100
<b>Marine invertebrates</b>	15.6	—	14.7	—	—	—
<b>Vegetal matter</b>	6.3	—	—	—	3.4	—
<b>Refuse</b>	—	—	1.1	—	—	—
<b>Others</b>	3.1	—	14.7	—	—	—

**Table S5.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull pellets in each season of 2017 at Sálvora and Berlenga Islands. Sampling months and total fish landing quantities ( $N = t \text{ mo}^{-1}$ ) and their percentages by species are also shown.

	2017							
	Sálvora				Berlenga			
	Breeding (May)		Pre-breeding (Feb-Mar)		Breeding (May-Jun)		Post-breeding (Sep)	
	Diet	Landings	Diet	Landings	Diet	Landings	Diet	Landings
N = 101	N = 5,453	N = 84	N = 946	N = 204	N = 2,189	N = 42	N = 1,450	
<b>Pelagic fish</b>	17.8	56.4	38.1	70.1	20.6	87.4	23.8	84.0
<i>Belone belone</i>	—	<0.1	3.6	—	—	—	—	—
<i>Chelon</i> sp.	—	—	—	0.1	—	<0.1	—	0.1
<i>Engraulis encrasicolus</i>	1.0	<0.1	—	<0.1	—	0.1	—	0.5
<i>Gadiculus argenteus</i>	—	—	—	—	0.5	—	—	—
<i>Micromesistius poutassou</i>	7.9	19.6	6.0	0.7	5.4	0.6	—	0.5
<i>Myctophum</i> sp.	—	—	—	—	—	—	—	—
<i>Sardina pilchardus</i>	4.0	1.9	7.1	0.1	8.3	41.6	16.7	42.2
<i>Scomber</i> sp.	3.0	11.4	8.3	6.5	4.4	10.5	7.1	10.2
<i>Scomberosox saurus</i>	—	<0.1	9.5	—	1.5	—	—	—
<i>Trachurus</i> sp.	5.9	13.7	11.9	56.9	10.3	33.6	2.4	27.9
<b>Demersal fish</b>	12.9	43.6	25.0	29.9	10.8	12.6	2.4	16.0
<i>Boops boops</i>	7.9	1.3	4.8	0.2	2.0	0.1	2.4	0.2
<i>Callionymus lyra</i>	—	<0.1	—	—	—	—	—	—
<i>Cepola rubescens</i>	—	—	—	—	—	—	—	—
<i>Chelidonichthys</i> sp.	1.0	0.1	4.8	0.5	1.0	0.1	—	0.1
<i>Coelorinchus</i> sp.	—	—	—	—	—	—	—	—
<i>Conger conger</i>	1.0	1.7	—	1.3	2.5	1.8	—	1.5
<i>Diplodus</i> sp.	1.0	0.3	2.4	1.7	—	0.4	—	0.4
<i>Galeus melastomus</i>	—	0.1	—	0.1	—	0.1	—	0.1
<i>Lepidotrigla cavillone</i>	1.0	—	3.6	0.5	2.9	<0.1	—	0.1
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	—	—	—	—	—	—	—	—
<i>Malacocephalus laevis</i>	—	—	—	—	—	—	—	—
<i>Merluccius</i> sp.	1.0	6.6	8.3	3.9	1.0	1.8	—	2.3
<i>Microchirus</i> sp.	—	<0.1	1.2	0.4	0.5	0.1	—	0.1
<i>Nezumia</i> sp.	—	—	—	—	—	—	—	—
<i>Phycis</i> sp.	—	<0.1	—	0.3	—	0.4	—	0.2
<i>Sarpa salpa</i>	—	<0.1	—	<0.1	—	0.1	—	0.2
<i>Serranus</i> sp.	—	0.1	2.4	<0.1	—	<0.1	—	<0.1
<i>Trachinus</i> sp.	—	—	—	<0.1	—	<0.1	—	<0.1
<i>Trisopterus</i> sp.	2.0	1.0	3.6	2.6	2.0	1.1	—	1.3
<b>Unidentified fish</b>	8.9	—	16.7	—	10.3	—	4.8	—
<b>Total fish</b>	23.8	100	60.7	100	26.0	100	26.2	100
<b>Marine invertebrates</b>	68.3	—	21.4	—	85.2	—	69.0	—
<b>Vegetal matter</b>	25.7	—	2.4	—	3.7	—	4.8	—
<b>Refuse</b>	20.8	—	26.2	—	6.9	—	9.5	—
<b>Others</b>	17.8	—	26.2	—	18.5	—	19.0	—

**Table S6.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull pellets in each season of 2017 at Pessegueiro Island. Sampling months and total fish landing quantities ( $N = t \text{ mo}^{-1}$ ) and their percentages by species are also shown.

	2017			
	Pessegueiro			
	Breeding (May & Jul)		Post-breeding (Oct)	
	Diet	Landings	Diet	Landings
	N = 58	N = 629	N = 87	N = 666
<b>Pelagic fish</b>	46.6	88.4	43.7	89.7
<i>Belone belone</i>	—	—	—	—
<i>Chelon</i> sp.	—	<0.1	—	0.2
<i>Engraulis encrasicolus</i>	—	—	—	—
<i>Gadiculus argenteus</i>	1.7	—	—	—
<i>Micromesistius poutassou</i>	12.1	10.5	2.3	9.4
<i>Myctophum</i> sp.	—	—	—	—
<i>Sardina pilchardus</i>	22.4	19.8	16.1	23.7
<i>Scomber</i> sp.	12.1	45.0	31.0	54.1
<i>Scomberosox saurus</i>	—	—	—	—
<i>Trachurus</i> sp.	13.8	13.1	4.6	2.1
<b>Demersal fish</b>	48.3	11.6	20.7	10.3
<i>Boops boops</i>	31.0	2.3	4.6	1.2
<i>Callionymus lyra</i>	—	—	—	—
<i>Cepola rubescens</i>	—	—	—	—
<i>Chelidonichthys</i> sp.	—	<0.1	1.1	<0.1
<i>Coelorinchus</i> sp.	—	—	—	—
<i>Conger conger</i>	1.7	1.0	—	0.8
<i>Diplodus</i> sp.	3.4	1.2	5.7	1.2
<i>Galeus melastomus</i>	—	<0.1	—	—
<i>Lepidotrigla cavillone</i>	5.2	—	3.4	—
<i>Lesueurigobius</i> sp.	—	—	—	—
<i>Lithognathus mormyrus</i>	5.2	<0.1	—	<0.1
<i>Malacocephalus laevis</i>	—	—	—	—
<i>Merluccius</i> sp.	3.4	1.8	1.1	1.6
<i>Microchirus</i> sp.	—	<0.1	—	<0.1
<i>Nezumia</i> sp.	—	—	—	—
<i>Phycis</i> sp.	—	0.4	—	0.2
<i>Sarpa salpa</i>	—	0.9	—	0.5
<i>Serranus</i> sp.	6.9	—	—	—
<i>Trachinus</i> sp.	—	<0.1	2.3	<0.1
<i>Trisopterus</i> sp.	1.7	0.1	—	0.1
<b>Unidentified fish</b>	20.7	—	10.3	—
<b>Total fish</b>	72.4	100	58.6	100
<b>Marine invertebrates</b>	10.3	—	29.9	—
<b>Vegetal matter</b>	12.1	—	59.8	—
<b>Refuse</b>	1.7	—	4.6	—
<b>Others</b>	31.0	—	13.8	—

**Table S7.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull pellets in each season of 2017 at Deserta Island. Sampling months and total fish landing quantities ( $N = t \text{ mo}^{-1}$ ) and their percentages by species are also shown.

	2017					
	Deserta					
	Pre-breeding (Feb-Mar)		Breeding (May-Jun)		Post-breeding (Oct)	
	Diet	Landings	Diet	Landings	Diet	Landings
	N = 184	N = 545	N = 262	N = 834	N = 119	N = 639
<b>Pelagic fish</b>	58.2	70.3	51.1	80.0	71.4	72.6
<i>Belone belone</i>	0.5	<0.1	0.4	<0.1	—	<0.1
<i>Chelon</i> sp.	3.8	<0.1	7.6	<0.1	5.0	<0.1
<i>Engraulis encrasicolus</i>	1.1	0.7	—	0.1	0.8	0.1
<i>Gadiculus argenteus</i>	4.3	—	3.1	—	8.4	—
<i>Micromesistius poutassou</i>	13.0	5.8	25.6	5.8	45.4	10.0
<i>Myctophum</i> sp.	—	—	1.1	—	—	—
<i>Sardina pilchardus</i>	21.2	0.2	9.9	35.1	18.5	29.3
<i>Scomber</i> sp.	13.0	8.4	3.1	8.3	9.2	8.0
<i>Scomberosox saurus</i>	0.5	—	1.1	—	3.4	—
<i>Trachurus</i> sp.	24.5	55.2	17.6	30.0	16.0	21.6
<b>Demersal fish</b>	62.5	29.7	34.7	20.0	53.8	27.4
<i>Boops boops</i>	5.4	1.4	5.0	1.4	6.7	1.2
<i>Callionymus lyra</i>	0.5	—	—	—	3.4	—
<i>Cepola rubescens</i>	—	—	—	—	—	—
<i>Chelidonichthys</i> sp.	1.1	0.4	1.1	0.1	—	0.1
<i>Coelorinchus</i> sp.	—	—	—	—	0.8	—
<i>Conger conger</i>	3.3	0.6	0.8	0.7	4.2	0.8
<i>Diplodus</i> sp.	35.9	4.3	16.4	2.4	21.8	2.4
<i>Galeus melastomus</i>	—	<0.1	0.8	0.1	—	—
<i>Lepidotrigla cavillone</i>	0.5	0.1	0.8	<0.1	0.8	0.1
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	—	0.4	0.4	0.1	2.5	<0.1
<i>Malacocephalus laevis</i>	3.8	—	2.7	—	4.2	—
<i>Merluccius</i> sp.	4.9	3.3	5.3	1.7	7.6	1.5
<i>Microchirus</i> sp.	4.9	1.9	1.5	0.9	1.7	0.7
<i>Nezumia</i> sp.	—	—	—	—	1.7	—
<i>Phycis</i> sp.	0.5	0.3	0.8	0.1	—	0.2
<i>Sarpa salpa</i>	0.5	2.3	0.4	1.0	0.8	1.4
<i>Serranus</i> sp.	3.3	<0.1	1.9	<0.1	6.7	<0.1
<i>Trachinus</i> sp.	2.2	0.1	2.7	0.1	2.5	<0.1
<i>Trisopterus</i> sp.	2.7	0.1	0.8	<0.1	10.1	0.1
<b>Unidentified fish</b>	24.5	—	24.8	—	26.1	—
<b>Total fish</b>	92.4	100	76.7	100	93.3	100
<b>Marine invertebrates</b>	4.9	—	9.2	—	8.4	—
<b>Vegetal matter</b>	4.9	—	5.3	—	4.2	—
<b>Refuse</b>	23.9	—	36.6	—	11.8	—
<b>Others</b>	12.0	—	14.5	—	9.2	—

**Table S8.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in Audouin's gull pellets in each season of 2017. Sampling months and total fish landing quantities (N = t mo<sup>-1</sup>) and their percentages by species are also shown.

	2017					
	Audouin's gull					
	Pre-breeding (Mar)		Breeding (May-Jun)		Post-breeding (Oct)	
	Diet	Landings	Diet	Landings	Diet	Landings
N = 94	N = 614	N = 280	N = 834	N = 48	N = 639	
<b>Pelagic fish</b>	78.7	70.8	86.4	80.0	75.0	72.6
<i>Belone belone</i>	10.6	<0.1	12.9	<0.1	4.2	<0.1
<i>Chelon</i> sp.	—	<0.1	—	<0.1	—	<0.1
<i>Engraulis encrasicolus</i>	—	1.2	2.1	0.1	8.3	0.1
<i>Gadiculus argenteus</i>	14.9	—	9.6	—	2.1	—
<i>Micromesistius poutassou</i>	30.9	7.4	21.1	5.8	25.0	10.0
<i>Myctophum</i> sp.	3.2	—	2.5	—	—	—
<i>Sardina pilchardus</i>	26.6	0.3	20.7	35.1	25.0	29.3
<i>Scomber</i> sp.	8.5	4.9	5.0	8.3	8.3	8.0
<i>Scomberosox saurus</i>	20.2	—	52.9	—	18.8	—
<i>Trachurus</i> sp.	18.1	57.0	6.1	30.0	6.3	21.6
<b>Demersal fish</b>	68.1	29.2	44.3	20.0	72.9	27.4
<i>Boops boops</i>	10.6	1.6	4.3	1.4	8.3	1.2
<i>Callionymus lyra</i>	3.2	—	7.1	—	12.5	—
<i>Cepola rubescens</i>	1.1	—	7.1	—	—	—
<i>Chelidonichthys</i> sp.	1.1	0.2	0.4	0.1	—	0.1
<i>Coelorinchus</i> sp.	—	—	—	—	—	—
<i>Conger conger</i>	5.3	0.6	3.9	0.7	2.1	0.8
<i>Diplodus</i> sp.	34.0	4.4	13.2	2.4	25.0	2.4
<i>Galeus melastomus</i>	1.1	<0.1	0.4	0.1	—	—
<i>Lepidotrigla cavillone</i>	1.1	0.1	0.7	<0.1	4.2	0.1
<i>Lesueurigobius</i> sp.	—	—	0.7	—	8.3	—
<i>Lithognathus mormyrus</i>	—	0.5	—	0.1	—	<0.1
<i>Malacocephalus laevis</i>	4.3	—	3.2	—	8.3	—
<i>Merluccius</i> sp.	5.3	3.5	2.5	1.7	6.3	1.5
<i>Microchirus</i> sp.	2.1	1.8	1.4	0.9	—	0.7
<i>Nezumia</i> sp.	1.1	—	—	—	6.3	—
<i>Phycis</i> sp.	—	0.3	1.1	0.1	—	0.2
<i>Sarpa salpa</i>	—	2.3	—	1.0	—	1.4
<i>Serranus</i> sp.	11.7	<0.1	8.9	<0.1	14.6	<0.1
<i>Trachinus</i> sp.	—	<0.1	0.4	0.1	—	<0.1
<i>Trisopterus</i> sp.	3.2	0.1	2.5	<0.1	2.1	0.1
<b>Unidentified fish</b>	30.9	—	22.9	—	35.4	—
<b>Total fish</b>	97.9	100	99.6	100	100	100
<b>Marine invertebrates</b>	16.0	—	2.9	—	6.3	—
<b>Vegetal matter</b>	1.1	—	0.4	—	—	—
<b>Refuse</b>	—	—	—	—	2.1	—
<b>Others</b>	4.3	—	3.2	—	—	—



**Table S9.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull pellets in each season of 2018 at Sálvora Island. Sampling months and total fish landing quantities ( $N = t \text{ mo}^{-1}$ ) and their percentages by species are also shown.

	2018			
	Sálvora			
	Pre-breeding (Jan)		Breeding (May)	
	Diet	Landings	Diet	Landings
N = 65	N = 3,329	N = 51	N = 5,036	
<b>Pelagic fish</b>	9.1	56.2	2.8	57.5
<i>Belone belone</i>	—	<0.1	—	<0.1
<i>Chelon</i> sp.	—	—	—	—
<i>Engraulis encrasicolus</i>	—	0.1	—	2.4
<i>Gadiculus argenteus</i>	—	—	—	—
<i>Micromesistius poutassou</i>	3.8	33.0	2.8	28.4
<i>Myctophum</i> sp.	—	—	—	—
<i>Sardina pilchardus</i>	1.1	<0.1	—	0.6
<i>Scomber</i> sp.	2.7	7.2	—	4.3
<i>Scomberosox saurus</i>	—	—	—	—
<i>Trachurus</i> sp.	1.6	6.4	—	13.0
<b>Demersal fish</b>	11.8	43.8	2.4	42.4
<i>Boops boops</i>	3.8	2.2	0.4	1.6
<i>Callionymus lyra</i>	—	<0.1	—	<0.1
<i>Cepola rubescens</i>	—	—	—	—
<i>Chelidonichthys</i> sp.	—	0.4	—	0.1
<i>Coelorinchus</i> sp.	—	—	—	—
<i>Conger conger</i>	2.2	1.8	—	1.9
<i>Diplodus</i> sp.	0.5	0.2	—	0.6
<i>Galeus melastomus</i>	—	0.1	—	0.1
<i>Lepidotrigla cavillone</i>	0.5	—	—	—
<i>Lesueurigobius</i> sp.	—	—	—	—
<i>Lithognathus mormyrus</i>	—	—	—	—
<i>Malacocephalus laevis</i>	—	—	—	—
<i>Merluccius</i> sp.	—	3.6	0.4	5.6
<i>Microchirus</i> sp.	—	<0.1	—	<0.1
<i>Nezumia</i> sp.	—	—	—	—
<i>Phycis</i> sp.	—	<0.1	—	0.1
<i>Sarpa salpa</i>	—	—	—	<0.1
<i>Serranus</i> sp.	0.5	<0.1	1.6	<0.1
<i>Trachinus</i> sp.	—	<0.1	—	—
<i>Trisopterus</i> sp.	4.3	1.0	—	0.7
<b>Unidentified fish</b>	3.2	—	3.6	—
<b>Total fish</b>	24.2	100	8.7	100
<b>Marine invertebrates</b>	80.0	—	86.3	—
<b>Vegetal matter</b>	15.4	—	13.7	—
<b>Refuse</b>	6.2	—	9.8	—
<b>Others</b>	—	—	17.6	—

**Table S10.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull pellets in season of 2018 at Berlenga Island. Sampling months and total fish landing quantities (N = t mo<sup>-1</sup>) and their percentages by species are also shown.

	2018					
	Berlenga					
	Pre-breeding (Feb)		Breeding (May & Jul)		Post-breeding (Sep)	
	Diet	Landings	Diet	Landings	Diet	Landings
	N = 109	N = 692	N = 156	N = 2,053	N = 259	N = 1,282
<b>Pelagic fish</b>	3.7	64.9	9.0	86.1	13.1	80.9
<i>Belone belone</i>	0.9	—	—	—	0.4	—
<i>Chelon</i> sp.	—	0.1	—	<0.1	—	<0.1
<i>Engraulis encrasicolus</i>	—	3.3	—	<0.1	—	1.5
<i>Gadiculus argenteus</i>	—	—	—	—	—	—
<i>Micromesistius poutassou</i>	0.9	0.6	1.9	0.6	2.7	0.3
<i>Myctophum</i> sp.	—	—	—	—	—	—
<i>Sardina pilchardus</i>	0.9	—	2.6	28.0	7.7	31.1
<i>Scomber</i> sp.	—	1.5	3.2	24.7	2.7	22.3
<i>Scomberosox saurus</i>	1.8	—	—	—	1.9	—
<i>Trachurus</i> sp.	—	51.5	3.2	30.6	2.7	23.0
<b>Demersal fish</b>	2.8	35.1	1.9	13.9	3.9	19.1
<i>Boops boops</i>	1.8	0.1	—	<0.1	1.2	<0.1
<i>Callionymus lyra</i>	—	—	—	—	—	—
<i>Cepola rubescens</i>	—	—	—	—	—	—
<i>Chelidonichthys</i> sp.	—	0.4	—	0.1	—	0.2
<i>Coelorinchus</i> sp.	—	—	—	—	—	—
<i>Conger conger</i>	—	1.5	—	1.7	0.4	1.5
<i>Diplodus</i> sp.	—	3.1	0.6	0.2	0.4	0.2
<i>Galeus melastomus</i>	—	0.1	—	0.1	—	0.1
<i>Lepidotrigla cavillone</i>	—	1.0	—	<0.1	0.4	0.1
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	—	—	—	—	—	<0.1
<i>Malacocephalus laevis</i>	—	—	—	—	—	—
<i>Merluccius</i> sp.	—	3.9	1.3	3.1	0.8	4.2
<i>Microchirus</i> sp.	—	0.3	—	0.1	—	0.1
<i>Nezumia</i> sp.	—	—	—	—	—	—
<i>Phycis</i> sp.	—	0.3	—	0.3	—	0.5
<i>Sarpa salpa</i>	—	<0.1	—	<0.1	—	0.1
<i>Serranus</i> sp.	0.9	<0.1	—	<0.1	0.8	<0.1
<i>Trachinus</i> sp.	—	<0.1	—	<0.1	—	<0.1
<i>Trisopterus</i> sp.	—	4.6	—	0.9	0.4	1.2
<b>Unidentified fish</b>	2.8	—	3.8	—	6.6	—
<b>Total fish</b>	6.4	100	13.5	100	18.1	100
<b>Marine invertebrates</b>	94.5	—	94.2	—	89.6	—
<b>Vegetal matter</b>	1.8	—	2.6	—	6.2	—
<b>Refuse</b>	6.4	—	1.9	—	6.6	—
<b>Others</b>	6.4	—	9.0	—	10.4	—

**Table S11.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull pellets in each season of 2018 at Pessegueiro Island. Sampling months and total fish landing quantities ( $N = t \text{ mo}^{-1}$ ) and their percentages by species are also shown.

	2018					
	Pessegueiro					
	Pre-breeding (Feb)		Breeding (May)		Post-breeding (Oct)	
	Diet	Landings	Diet	Landings	Diet	Landings
	N = 26	N = 236	N = 54	N = 652	N = 39	N = 502
<b>Pelagic fish</b>	38.5	83.2	55.6	88.8	38.5	85.4
<i>Belone belone</i>	—	—	—	—	—	<0.1
<i>Chelon</i> sp.	—	0.1	—	<0.1	—	0.2
<i>Engraulis encrasicolus</i>	—	—	—	—	—	—
<i>Gadiculus argenteus</i>	—	—	1.9	—	—	—
<i>Micromesistius poutassou</i>	15.4	5.7	7.4	11.9	7.7	12.9
<i>Myctophum</i> sp.	—	—	—	—	—	—
<i>Sardina pilchardus</i>	15.4	—	9.3	8.7	23.1	—
<i>Scomber</i> sp.	11.5	67.8	20.4	45.9	10.3	50.4
<i>Scomberosox saurus</i>	7.7	—	1.9	—	5.1	—
<i>Trachurus</i> sp.	3.8	9.1	29.6	22.1	15.4	21.7
<b>Demersal fish</b>	30.8	16.8	53.7	11.2	41.0	14.6
<i>Boops boops</i>	—	6.2	35.2	3.2	5.1	4.2
<i>Callionymus lyra</i>	7.7	—	—	—	—	—
<i>Cepola rubescens</i>	—	—	—	—	—	—
<i>Chelidonichthys</i> sp.	—	0.2	1.9	<0.1	—	<0.1
<i>Coelorinchus</i> sp.	—	—	—	—	—	—
<i>Conger conger</i>	—	1.6	1.9	1.3	—	0.4
<i>Diplodus</i> sp.	11.5	0.5	11.1	1.3	2.6	0.6
<i>Galeus melastomus</i>	—	—	1.9	<0.1	—	—
<i>Lepidotrigla cavillone</i>	—	—	9.3	—	5.1	—
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	—	<0.1	—	<0.1	—	<0.1
<i>Malacocephalus laevis</i>	—	—	—	—	—	—
<i>Merluccius</i> sp.	—	0.1	—	0.3	5.1	2.3
<i>Microchirus</i> sp.	—	0.4	1.9	0.1	—	<0.1
<i>Nezumia</i> sp.	—	—	—	—	—	—
<i>Phycis</i> sp.	—	0.6	1.9	0.7	—	0.2
<i>Sarpa salpa</i>	—	<0.1	—	<0.1	—	2.2
<i>Serranus</i> sp.	7.7	—	11.1	—	15.4	—
<i>Trachinus</i> sp.	—	<0.1	—	0.1	5.1	<0.1
<i>Trisopterus</i> sp.	3.8	0.5	—	0.1	7.7	<0.1
<b>Unidentified fish</b>	26.9	—	35.2	—	17.9	—
<b>Total fish</b>	65.4	100	83.3	100	76.9	100
<b>Marine invertebrates</b>	50.0	—	25.9	—	43.6	—
<b>Vegetal matter</b>	23.1	—	64.8	—	56.4	—
<b>Refuse</b>	3.8	—	13.0	—	2.6	—
<b>Others</b>	42.3	—	16.7	—	38.5	—

**Table S12.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in yellow-legged gull pellets in each season of 2018 at Deserta Island. Sampling months and total fish landing quantities ( $N = t \text{ mo}^{-1}$ ) and their percentages by species are also shown.

	2018					
	Deserta					
	Pre-breeding (Apr)		Breeding (May)		Post-breeding (Oct)	
	Diet	Landings	Diet	Landings	Diet	Landings
	N = 92	N = 410	N = 150	N = 1,884	N = 39	N = 664
<b>Pelagic fish</b>	26.1	72.0	50.0	94.0	71.8	72.0
<i>Belone belone</i>	—	<0.1	—	<0.1	—	<0.1
<i>Chelon</i> sp.	—	0.1	2.0	<0.1	2.6	0.5
<i>Engraulis encrasicolus</i>	1.1	—	—	0.6	—	<0.1
<i>Gadiculus argenteus</i>	1.1	—	4.7	—	15.4	—
<i>Micromesistius poutassou</i>	5.4	7.2	26.7	1.4	20.5	4.1
<i>Myctophum</i> sp.	—	—	—	—	2.6	—
<i>Sardina pilchardus</i>	2.2	—	7.3	7.7	10.3	—
<i>Scomber</i> sp.	7.6	13.9	10.0	70.8	30.8	34.6
<i>Scomberosox saurus</i>	—	—	1.3	—	5.1	—
<i>Trachurus</i> sp.	14.1	50.6	18.7	13.3	15.4	29.0
<b>Demersal fish</b>	25.0	28.0	38.7	6.0	76.9	28.0
<i>Boops boops</i>	5.4	1.0	8.0	0.3	2.6	2.1
<i>Callionymus lyra</i>	—	—	—	—	—	—
<i>Cepola rubescens</i>	—	—	—	—	—	<0.1
<i>Chelidonichthys</i> sp.	1.1	0.3	2.0	<0.1	—	0.1
<i>Coelorinchus</i> sp.	—	—	—	—	—	—
<i>Conger conger</i>	1.1	0.1	5.3	0.3	7.7	0.4
<i>Diplodus</i> sp.	2.2	2.4	6.7	0.6	23.1	2.9
<i>Galeus melastomus</i>	—	—	0.7	—	—	<0.1
<i>Lepidotrigla cavillone</i>	—	0.1	1.3	—	—	0.1
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	2.2	0.3	1.3	<0.1	7.7	<0.1
<i>Malacocephalus laevis</i>	—	—	0.7	—	10.3	—
<i>Merluccius</i> sp.	3.3	2.8	6.7	0.7	17.9	1.9
<i>Microchirus</i> sp.	4.3	1.5	3.3	0.2	—	1.9
<i>Nezumia</i> sp.	—	—	—	—	5.1	—
<i>Phycis</i> sp.	—	0.3	—	0.1	5.1	0.1
<i>Sarpa salpa</i>	—	1.1	0.7	0.3	10.3	4.7
<i>Serranus</i> sp.	4.3	<0.1	3.3	<0.1	—	<0.1
<i>Trachinus</i> sp.	1.1	0.1	3.3	<0.1	15.4	0.1
<i>Trisopterus</i> sp.	1.1	0.2	1.3	0.1	10.3	0.1
<b>Unidentified fish</b>	29.3	—	24.0	—	25.6	—
<b>Total fish</b>	60.9	100	78.0	100	100.0	100
<b>Marine invertebrates</b>	26.1	—	37.3	—	10.3	—
<b>Vegetal matter</b>	60.9	—	12.0	—	—	—
<b>Refuse</b>	77.2	—	12.7	—	7.7	—
<b>Others</b>	17.4	—	8.7	—	15.4	—

**Table S13.** Percentage of occurrence (PO) of the main fish species, i.e. at least once PO > 5%, and of each prey category in Audouin's gull pellets in each season of 2018. Sampling months and total fish landing quantities (N = t mo<sup>-1</sup>) and their percentages by species are also shown.

	2018					
	Audouin's gull					
	Pre-breeding (Apr)		Breeding (May)		Post-breeding (Oct)	
	Diet	Landings	Diet	Landings	Diet	Landings
	N = 44	N = 410	N = 191	N = 1,884	N = 60	N = 664
<b>Pelagic fish</b>	88.6	72.0	88.0	94.0	95.0	72.0
<i>Belone belone</i>	11.4	<0.1	3.7	<0.1	1.7	<0.1
<i>Chelon</i> sp.	—	0.1	—	<0.1	—	0.5
<i>Engraulis encrasicolus</i>	—	—	4.7	0.6	—	<0.1
<i>Gadiculus argenteus</i>	22.7	—	5.8	—	3.3	—
<i>Micromesistius poutassou</i>	18.2	7.2	22.5	1.4	18.3	4.1
<i>Myctophum</i> sp.	6.8	—	8.9	—	13.3	—
<i>Sardina pilchardus</i>	11.4	—	15.7	7.7	8.3	—
<i>Scomber</i> sp.	6.8	13.9	14.1	70.8	8.3	34.6
<i>Scomberosox saurus</i>	63.6	—	68.6	—	88.3	—
<i>Trachurus</i> sp.	9.1	50.6	4.7	13.3	5.0	29.0
<b>Demersal fish</b>	40.9	28.0	39.8	6.0	28.3	28.0
<i>Boops boops</i>	15.9	1.0	3.1	0.3	3.3	2.1
<i>Callionymus lyra</i>	4.5	—	—	—	—	—
<i>Cepola rubescens</i>	2.3	—	0.5	—	—	<0.1
<i>Chelidonichthys</i> sp.	—	0.3	—	<0.1	—	0.1
<i>Coelorinchus</i> sp.	—	—	—	—	—	—
<i>Conger conger</i>	—	0.1	7.9	0.3	3.3	0.4
<i>Diplodus</i> sp.	2.3	2.4	11.0	0.6	10.0	2.9
<i>Galeus melastomus</i>	4.5	—	—	—	—	<0.1
<i>Lepidotrigla cavillone</i>	2.3	0.1	—	—	—	0.1
<i>Lesueurigobius</i> sp.	—	—	—	—	—	—
<i>Lithognathus mormyrus</i>	—	0.3	—	<0.1	—	<0.1
<i>Malacocephalus laevis</i>	13.6	—	7.3	—	6.7	—
<i>Merluccius</i> sp.	4.5	2.8	8.4	0.7	6.7	1.9
<i>Microchirus</i> sp.	—	1.5	0.5	0.2	—	1.9
<i>Nezumia</i> sp.	—	—	—	—	1.7	—
<i>Phycis</i> sp.	—	0.3	—	0.1	—	0.1
<i>Sarpa salpa</i>	—	1.1	—	0.3	—	4.7
<i>Serranus</i> sp.	2.3	<0.1	9.9	<0.1	1.7	<0.1
<i>Trachinus</i> sp.	—	0.1	0.5	<0.1	—	0.1
<i>Trisopterus</i> sp.	—	0.2	1.0	0.1	1.7	0.1
<b>Unidentified fish</b>	25.0	—	32.5	—	23.3	—
<b>Total fish</b>	95.5	100	96.3	100	100.0	100
<b>Marine invertebrates</b>	13.6	—	21.5	—	—	—
<b>Vegetal matter</b>	—	—	—	—	—	—
<b>Refuse</b>	—	—	1.0	—	—	—
<b>Others</b>	—	—	8.4	—	3.3	—

**Table S14.**  $\delta^{15}\text{N}$ ,  $\delta^{13}\text{C}$ , and  $\delta^{34}\text{S}$  values in each tissue (P1 – innermost primary feathers, S8 – eighth secondary feathers, RBC – red blood cells, Br – breast feathers, Chicks – chick feathers) of yellow-legged (from Sálvora, Berlenga, Pessegueiro, and Deserta Islands) and Audouin's gulls in 2017 and 2018. Values are mean  $\pm$  SD. Pelagic and demersal fish landing quantities ( $\text{t mo}^{-1}$ ) are also shown for those tissues which relationships were analysed.

Year	Tissue	N	$\delta^{15}\text{N}$	$\delta^{13}\text{C}$	$\delta^{34}\text{S}$	Pelagic fish landings	Demersal fish landings
<b>Sálvora</b>							
2017	P1	9	13.8 $\pm$ 0.8	-18.4 $\pm$ 0.8	—	—	—
	S8	9	12.9 $\pm$ 1.3	-17.9 $\pm$ 1.4	—	—	—
	RBC	9	12.6 $\pm$ 0.7	-18.9 $\pm$ 0.8	—	—	—
	Chicks	15	13.4 $\pm$ 0.6	-16.9 $\pm$ 0.5	—	—	—
<b>Berlenga</b>							
2017	P1	16	13.7 $\pm$ 0.7	-17.2 $\pm$ 0.4	—	—	—
	S8	16	14.4 $\pm$ 1.3	-16.8 $\pm$ 1.1	—	—	—
	Br	16	12.9 $\pm$ 0.6	-16.8 $\pm$ 0.5	18.7 $\pm$ 1.0	956	291
	RBC	16	12.6 $\pm$ 0.7	-18.8 $\pm$ 0.7	—	—	—
	Chicks	10	12.8 $\pm$ 0.7	-17.0 $\pm$ 0.6	17.0 $\pm$ 0.7	1,990	243
2018	P1	16	14.7 $\pm$ 0.6	-16.7 $\pm$ 0.5	—	—	—
	S8	16	14.6 $\pm$ 0.8	-17.0 $\pm$ 0.8	—	—	—
	Br	16	13.9 $\pm$ 0.9	-16.8 $\pm$ 0.4	18.0 $\pm$ 1.0	1,133	256
	RBC	16	11.6 $\pm$ 0.9	-18.4 $\pm$ 0.4	—	—	—
Chicks	10	13.0 $\pm$ 0.6	-16.5 $\pm$ 0.3	16.4 $\pm$ 0.7	1,733	232	
<b>Pessegueiro</b>							
2017	P1	7	14.3 $\pm$ 0.9	-16.1 $\pm$ 1.0	—	—	—
	S8	7	14.8 $\pm$ 0.7	-16.1 $\pm$ 0.5	—	—	—
	Br	7	13.3 $\pm$ 0.4	-15.9 $\pm$ 0.4	18.5 $\pm$ 0.9	649	70
	RBC	7	13.5 $\pm$ 0.6	-18.0 $\pm$ 0.4	—	—	—
	Chicks	13	13.7 $\pm$ 0.2	-16.7 $\pm$ 0.3	17.6 $\pm$ 0.6	298	41
2018	P1	11	13.6 $\pm$ 0.8	-17.0 $\pm$ 1.0	—	—	—
	S8	11	13.6 $\pm$ 1.1	-17.0 $\pm$ 0.9	—	—	—
	Br	11	13.7 $\pm$ 0.7	-16.8 $\pm$ 0.6	17.1 $\pm$ 1.6	374	57
	RBC	11	11.5 $\pm$ 1.0	-18.3 $\pm$ 0.7	—	—	—
Chicks	10	13.4 $\pm$ 0.3	-16.1 $\pm$ 0.2	17.5 $\pm$ 0.3	472	51	
<b>Deserta</b>							
2017	P1	10	15.0 $\pm$ 0.8	-15.7 $\pm$ 0.4	—	—	—
	S8	10	14.3 $\pm$ 1.0	-16.5 $\pm$ 1.0	—	—	—
	Br	10	13.0 $\pm$ 0.8	-16.2 $\pm$ 0.7	17.3 $\pm$ 1.5	745	169
	RBC	10	11.9 $\pm$ 1.4	-18.6 $\pm$ 0.8	—	—	—
	Chicks	14	13.2 $\pm$ 0.7	-16.6 $\pm$ 0.9	15.9 $\pm$ 2.0	677	147
2018	P1	8	14.0 $\pm$ 1.6	-16.6 $\pm$ 0.8	—	—	—
	S8	8	13.8 $\pm$ 1.0	-16.3 $\pm$ 1.7	—	—	—
	Br	8	13.2 $\pm$ 1.1	-16.8 $\pm$ 0.5	15.7 $\pm$ 3.0	583	128
	RBC	8	10.9 $\pm$ 0.8	-18.6 $\pm$ 0.6	—	—	—
Chicks	10	13.0 $\pm$ 0.4	-16.4 $\pm$ 0.2	17.5 $\pm$ 0.4	781	98	
<b>Audouin's gull</b>							
2017	P1	12	14.1 $\pm$ 0.3	-16.3 $\pm$ 0.3	—	—	—
	S8	12	15.0 $\pm$ 1.3	-14.4 $\pm$ 1.4	—	—	—
	RBC	12	12.9 $\pm$ 0.3	-18.4 $\pm$ 0.5	—	—	—
	Chicks	15	12.9 $\pm$ 0.2	-17.3 $\pm$ 0.3	—	—	—
2018	P1	14	13.6 $\pm$ 0.7	-17.0 $\pm$ 0.5	—	—	—
	S8	14	13.3 $\pm$ 0.6	-15.3 $\pm$ 1.7	—	—	—
	RBC	14	11.2 $\pm$ 0.3	-18.6 $\pm$ 0.3	—	—	—
Chicks	11	12.9 $\pm$ 0.3	-16.5 $\pm$ 0.1	—	—	—	

**Table S15.**  $\delta^{15}\text{N}$  and  $\delta^{13}\text{C}$  values and biochemical parameters in the plasma of yellow-legged (from Berlenga, Pessegueiro, and Deserta Islands) and Audouin's gulls in 2017 and 2018. Values are mean  $\pm$  SD. Pelagic and demersal fish landing quantities ( $\text{t mo}^{-1}$ ) are also shown.

Year	N	$\delta^{15}\text{N}$	$\delta^{13}\text{C}$	Triglycerides ( $\text{mg dl}^{-1}$ )	Uric acid ( $\text{mg dl}^{-1}$ )	Carotenoids ( $\text{mg dl}^{-1}$ )	Total protein (g $\text{dl}^{-1}$ )	Pelagic fish landings	Demersal fish landings
<b>Berlenga</b>									
2017	16	$13.0 \pm 0.6$	$-18.7 \pm 0.6$	$102.5 \pm 62.1$	$10.1 \pm 5.9$	$2.9 \pm 0.9$	$4.3 \pm 0.8$	1,988	245
2018	16	$11.8 \pm 0.3$	$-18.5 \pm 0.4$	$306.6 \pm 111.5$	$16.1 \pm 12.2$	$1.9 \pm 1.1$	$4.3 \pm 2.9$	2,385	326
<b>Pessegueiro</b>									
2017	7	$12.2 \pm 1.5$	$-19.0 \pm 1.2$	$52.3 \pm 26.7$	$13.7 \pm 9.6$	$1.7 \pm 0.5$	$3.7 \pm 1.1$	562	62
2018	11	$12.0 \pm 0.8$	$-18.8 \pm 1.1$	$261.0 \pm 75.3$	$16.0 \pm 6.6$	$2.4 \pm 0.7$	$3.2 \pm 0.5$	423	97
<b>Deserta</b>									
2017	10	$13.0 \pm 0.7$	$-18.4 \pm 0.4$	$129.9 \pm 61.9$	$13.0 \pm 4.2$	$2.4 \pm 0.6$	$4.9 \pm 1.0$	709	189
2018	8	$12.4 \pm 0.6$	$-18.0 \pm 0.5$	$311.4 \pm 56.2$	$11.0 \pm 4.0$	$1.5 \pm 0.5$	$4.1 \pm 0.5$	1,768	120
<b>Audouin's gull</b>									
2017	12	$12.1 \pm 1.4$	$-19.3 \pm 0.5$	$137.9 \pm 27.4$	$10.1 \pm 5.8$	$2.2 \pm 0.4$	$4.0 \pm 0.4$	709	189
2018	14	$12.1 \pm 1.2$	$-18.8 \pm 0.7$	$466.9 \pm 74.5$	$7.7 \pm 2.5$	$2.3 \pm 0.8$	$4.3 \pm 0.6$	2,259	120