

Figure S1. Stable carbon and nitrogen isotope values of identified prey (whole euphausiids and fish larvae) in the diet samples of storm-petrels (*Hydrobates melania*, *Hydrobates leucorhous*, *Hydrobates microsoma*) collected at San Benito Oeste Island, Mexico, in 2012 and 2013, and in waters off the Pacific coast of the Baja California Peninsula during the IMECOCAL cruises (Mexican Research Program of the California Current). Values are mean \pm SD. $\delta^{13}\text{C}$ values of the IMECOCAL samples were corrected by +2‰ as they were stored in formalin. Eup gib: *Euphausia gibboides*, Eup exi: *Euphausia eximia*, Nyc sim: *Nyctiphanes simplex*, Thy spi: *Thysanoessa spinifera*, Nem dif: *Nematoscelis difficilis*, Vic luc: *Vinciguerria lucetia*.

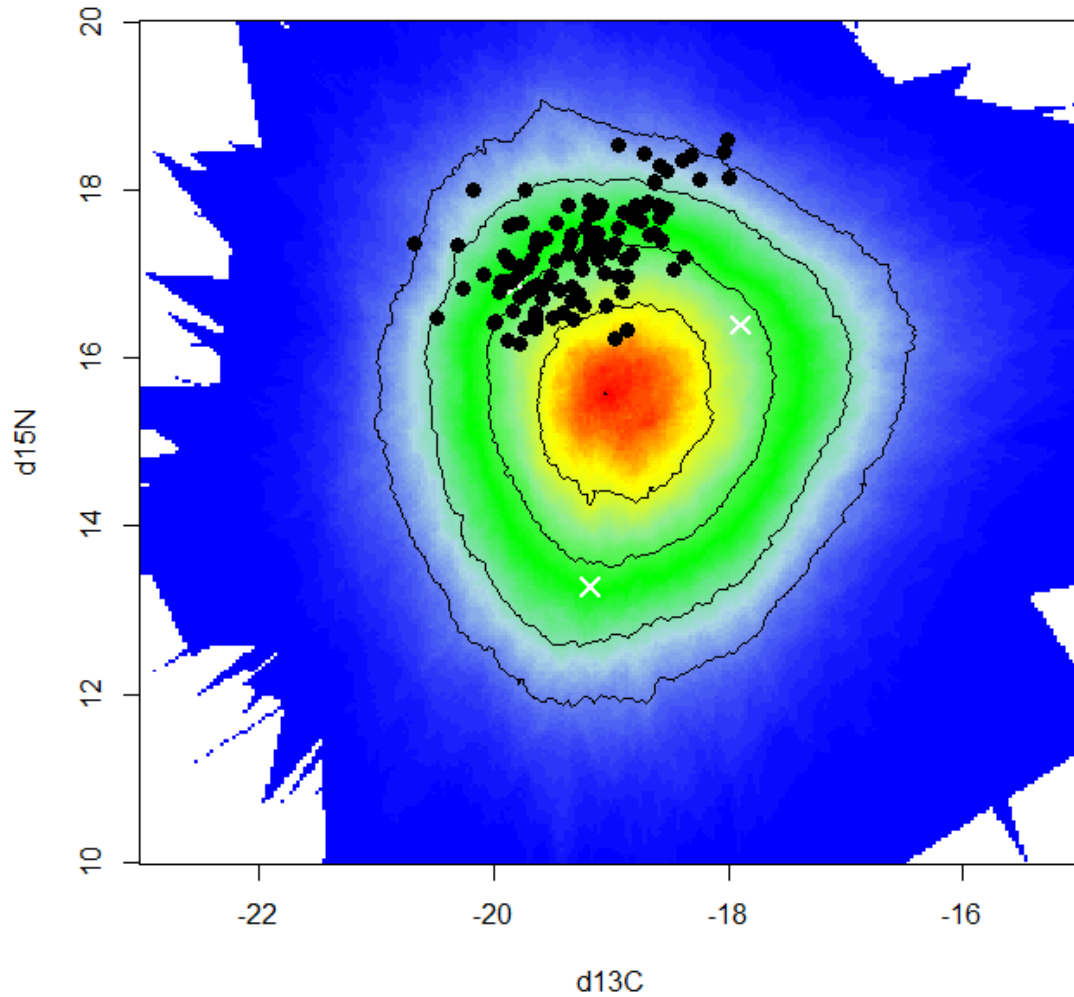


Figure S2. Simulated mixing polygon calculated with three potential prey groups (white crosses: predatory krill, omnivorous krill, and fish larvae) for the adults and chicks of the three storm-petrel species (*Hydrobates melania*, *Hydrobates leucorhous*, *Hydrobates microsoma*). Dark symbols represent storm-petrel blood values corrected with the discrimination factors.

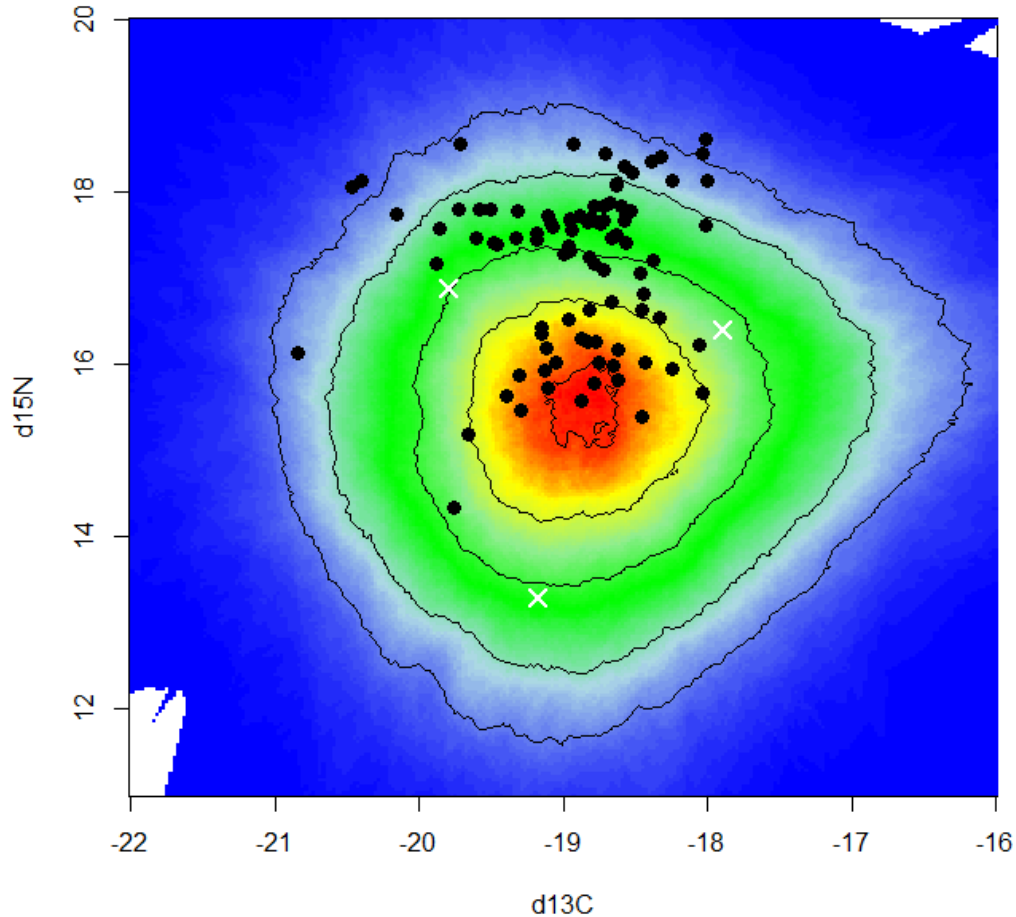


Figure S3. Simulated mixing polygon calculated with three potential prey groups (white crosses: predatory krill, omnivorous krill, and fish larvae) for adults of the black storm-petrel (*Hydrobates melania*) during three breeding phases (pre-laying, incubation, and chick-rearing). Dark symbols represent storm-petrel egg-membrane and blood values corrected with the discrimination factors. Egg membrane samples were corrected by subtracting 2‰ and 1‰ from the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values, respectively, to ensure data were comparable with blood values.

Table S1. Comparison of phenology for the black storm-petrels (*Hydrobates melania*), Leach’s storm-petrels (*Hydrobates leucorhous*), and least storm-petrels (*Hydrobates microsoma*). Egg-laying period in light blue; hatching dates in dark blue; chick fledging dates in dark gray; molt period in light gray. Superscript numbers indicate the reference sources: ¹ Everett et al. (2020), ² YB-G unpubl. data, ³ Pyle (2008), ⁴ Ainley (1976), and ⁵ Bedolla-Guzmán et al. (2017).

| Species | Period | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|----------------------|-------------------------|------------|------------|------------|------------|-----|------------|------------|------------|-----------|------------|------------|------------|
| Black storm-petrel | Breeding ^{1,2} | | | | | | | Light Blue | Light Blue | Dark Blue | Dark Blue | Dark Gray | Dark Gray |
| | Molt ^{1,3} | Light Gray | Light Gray | Light Gray | | | | | | | Light Gray | Light Gray | Light Gray |
| Leach’s storm-petrel | Breeding ² | | | | | | | Light Blue | Light Blue | Dark Blue | Dark Blue | Dark Gray | Dark Gray |
| | Molt ^{3,4} | Light Gray | Light Gray | | | | | | | | | Light Gray | Light Gray |
| Least storm-petrel | Breeding ⁵ | | | | | | Light Blue | Light Blue | Dark Blue | Dark Blue | Dark Gray | Dark Gray | |
| | Molt ³ | Light Gray | Light Gray | Light Gray | Light Gray | | | | | | | | Light Gray |

Table S2. Stable isotope mixing model (MixSIAR) results with predicted diet proportions (median values with the 5th to 95th percentile in parentheses) of the three potential prey species compared to the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ mixture values of the three storm-petrel species (*Hydrobates melania*, *Hydrobates leucorhous*, *Hydrobates microsoma*).

| Breeding season | Species | Fish larvae | Omnivorous krill | Predatory krill |
|-----------------|----------------------|--------------------------|--------------------------|--------------------------|
| 2012 | Black storm-petrel | 0.537 (0.451 – 0.627) | 0.064 (0.03 – 0.113) | 0.395 (0.304 – 0.486) |
| | Leach’s storm-petrel | 0.527 (0.451 – 0.602) | 0.42 (0.347 – 0.5) | 0.048 (0.017 – 0.99) |
| | Least storm-petrel | 0.556 (0.479 – 0.637) | 0.317 (0.245 – 0.399) | 0.122 (0.062 – 0.195) |
| 2013 | Black storm-petrel | 0.461 (0.38 – 0.542) | 0.065 (0.032 – 0.115) | 0.471 (0.384 – 0.56) |
| | Leach’s storm-petrel | 0.478 (0.405 – 0.551) | 0.457 (0.384 – 0.539) | 0.061 (0.022 – 0.121) |
| | Least storm-petrel | 0.5 (0.426 – 0.579) | 0.342 (0.268 – 0.426) | 0.154 (0.079 – 0.236) |

Table S3. Stable isotope mixing model (MixSIAR) results with predicted diet proportions (median values with the 5th to 95th percentile in parentheses) of the three potential prey species compared to the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ mixture values of the black storm-petrel *Hydrobates melania* during three phases of the breeding period.

| Breeding season | Species | Fish larvae | Omnivorous krill | Predatory krill |
|-----------------|---------------|-----------------|------------------|-----------------|
| 2012 | Pre-laying | 0.335 | 0.348 | 0.177 |
| | | (0.258– 0.413) | (0.276 – 0.433) | (0.105 – 0.288) |
| | Incubation | 0.592 | 0.092 | 0.136 |
| | | (0.496– 0.705) | (0.025 – 0.197) | (0.060 – 0.266) |
| | Chick-rearing | 0.491 | 0.045 | 0.329 |
| | | (0.405 – 0.592) | (0.019 – 0.090) | (0.223 – 0.588) |
| 2013 | Pre-laying | 0.370 | 0.271 | 0.216 |
| | | (0.288 – 0.457) | (0.193 – 0.355) | (0.120 – 0.325) |
| | Chick-rearing | 0.487 | 0.031 | 0.357 |
| | | (0.396 – 0.588) | (0.012 – 0.067) | (0.237 – 0.467) |

Table S4. Diet composition of black storm-petrels (*Hydrobates melania*), Leach’s storm-petrels (*Hydrobates leucorhous*), and least storm-petrels (*Hydrobates microsoma*) on San Benito Oeste Island, Mexico, during the breeding seasons of 2012–2013. FO (frequency of occurrence) is the percentage of samples in which the prey items of each type were found, and V is the estimated volume (%) for each main prey group. Empty cells mean that a certain prey item was not found in diet samples.

| | Black storm-petrel | | | | | | Leach’s storm-petrel | | | | | | Least storm-petrel | | | | | |
|--------------------------------|--------------------|----|----|-------|----|----|----------------------|----|----|--------|----|----|--------------------|---|---|-------|----|----|
| | 2012 | | | 2013 | | | 2012 | | | 2013 | | | 2012 | | | 2013 | | |
| | n = 16 | | | n = 9 | | | n = 20 | | | n = 14 | | | n = 2 | | | n = 8 | | |
| | FO | | V | FO | | V | FO | | V | FO | | V | FO | | V | FO | | V |
| n | % | % | n | % | % | n | % | % | n | % | % | n | % | % | n | % | % | |
| Euphausiacea | 13 | 76 | 64 | 6 | 67 | 82 | 9 | 45 | 39 | 5 | 36 | 25 | | | | 5 | 63 | 25 |
| <i>Euphausia eximia</i> | 1 | 6 | | | | | 1 | 5 | | 2 | 14 | | | | | | | |
| <i>Euphausia gibboides</i> | | | | | | | 2 | 10 | | | | | | | 1 | 13 | | |
| <i>Euphausia recurva</i> | 2 | 12 | | | | | 1 | 5 | | | | | | | | | | |
| <i>Euphausia</i> sp. | 1 | 6 | | | | | | | | | | | | | | | | |
| <i>Nematoscelis difficilis</i> | 1 | 6 | | 1 | 11 | | 6 | 30 | | 2 | 14 | | | | | | | |
| <i>Nyctiphanes simplex</i> | 2 | 12 | | | | | 1 | 5 | | 1 | 7 | | | | 2 | 25 | | |
| <i>Thysanoessa spinifera</i> | 5 | 29 | | 5 | 56 | | 3 | 15 | | 2 | 14 | | | | 2 | 25 | | |
| Unidentified | 5 | 29 | | 2 | 22 | | 1 | 5 | | | | | | | | | | |
| Amphipoda | | | | 1 | 11 | 2 | 2 | 10 | <1 | | | | | | | | | |
| <i>Vibilia armata</i> | | | | | | | 1 | 5 | | | | | | | | | | |

Table S4. (cont.)

| | Black storm-petrel | | | | | | Leach’s storm-petrel | | | | | | Least storm-petrel | | | | | |
|-----------------|--------------------|---|---|-------|----|---|----------------------|----|----|--------|---|---|--------------------|---|---|-------|---|---|
| | 2012 | | | 2013 | | | 2012 | | | 2013 | | | 2012 | | | 2013 | | |
| | n = 16 | | | n = 9 | | | n = 20 | | | n = 14 | | | n = 2 | | | n = 8 | | |
| | FO | | V | FO | | V | FO | | V | FO | | V | FO | | V | FO | | V |
| n | % | % | n | % | % | n | % | % | n | % | % | n | % | % | n | % | % | |
| Unidentified | | | | 1 | 11 | 2 | 2 | 10 | | | | | | | | | | |
| Copepoda | 1 | 6 | 1 | | | | 2 | 10 | <1 | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|----|----|---|----|----|----|----|----|----|----|----|---|-----|-----|---|----|----|
| Unidentified | 1 | 6 | | | | | 2 | 10 | | | | | | | | | | |
| Decapoda | | | | 1 | 11 | <1 | 1 | 5 | 3 | | | | | | | | | |
| Unidentified | | | | 1 | 11 | <1 | 1 | 5 | | | | | | | | | | |
| Cephalopoda | 1 | 6 | <1 | 1 | 11 | 4 | 2 | 10 | 1 | | | | | | | 1 | 13 | 18 |
| <i>Doryteuthis opalescens</i> | | | | 1 | 11 | 4 | | | | | | | | | | 1 | 13 | |
| Unidentified | 1 | 6 | | | | | 2 | 10 | | | | | | | | | | |
| Fish | 4 | 24 | 34 | 3 | 33 | 11 | 18 | 90 | 55 | 13 | 93 | 75 | 2 | 100 | 100 | 6 | 75 | 57 |
| <i>Vinciguerrria lucetia</i> | | | | 2 | 22 | | 17 | 85 | | 6 | 43 | | 2 | 100 | | 2 | 25 | |
| <i>Synodus lucioceps</i> | | | | | | | | | | | | | 1 | 50 | | | | |
| Unidentified | 4 | 24 | 34 | 1 | 11 | | 3 | 15 | | 8 | 57 | | 1 | 50 | | 4 | 50 | |

Table S5. Ellipse area overlap (%) among black storm-petrels (*Hydrobates melania*, BLSP) Leach’s storm-petrels (*Hydrobates leucorhous*, LESP), and least storm-petrels (*Hydrobates microsoma*, LSTP) on San Benito Oeste Island, Mexico, during breeding seasons of 2012–2013 calculated in SIBER (Stable Isotope Bayesian Ellipses in R; Jackson et al. 2011) for whole blood (breeding period) and feathers (non-breeding period). P1 feathers represent dietary inputs from the previous year of sampling. UT: Undertail coverts. Significant values (≥ 0.50) are shown in bold.

| Species pair | 2012 | | | 2013 | | |
|---|------------------------------|------------------------------|--------------------------------------|------------------------------|------------------------------|--------------------------------------|
| | % of niche area overlap sp.1 | % of niche area overlap sp.2 | % of niche area overlap both species | % of niche area overlap sp.1 | % of niche area overlap sp.2 | % of niche area overlap both species |
| Blood | | | | | | |
| Black storm-petrel & Leach’s storm-petrel | 0.19 | 0.15 | 0.09 | 0.04 | 0.09 | 0.03 |
| Black storm-petrel & least storm-petrel | 0.35 | 0.35 | 0.21 | 0.34 | 0.29 | 0.18 |
| Leach’s storm-petrel & Least storm-petrel | 0.60 | 0.75 | 0.50 | 0.56 | 0.21 | 0.18 |
| Primary feather P1 | | | | | | |
| Black storm-petrel & Leach’s storm-petrel | 0.33 | 0.34 | 0.20 | 0.38 | 0.54 | 0.28 |

Table S5. (cont.)

| Species pair | 2012 | | | 2013 | | |
|---|------------------------------|------------------------------|--------------------------------------|------------------------------|------------------------------|--------------------------------------|
| | % of niche area overlap sp.1 | % of niche area overlap sp.2 | % of niche area overlap both species | % of niche area overlap sp.1 | % of niche area overlap sp.2 | % of niche area overlap both species |
| Black storm-petrel & least storm-petrel | 0.48 | 0.45 | 0.30 | 0.36 | 0.48 | 0.26 |
| Leach's storm-petrel & least storm-petrel | 0.65 | 0.60 | 0.45 | 0.67 | 0.62 | 0.48 |
| Primary feather P6 | | | | | | |
| Black storm-petrel & Leach's storm-petrel | 0.27 | 0.32 | 0.17 | 0.37 | 0.48 | 0.26 |
| Black storm-petrel & least storm-petrel | 0.83 | 0.42 | 0.39 | 0.87 | 0.19 | 0.18 |
| Leach's storm-petrel & least storm-petrel | 0.99 | 0.43 | 0.43 | 1 | 0.16 | 0.16 |
| Undertail cover feather | | | | | | |
| Black storm-petrel & Leach's storm-petrel | 0.31 | 0.47 | 0.23 | 0.51 | 0.37 | 0.27 |
| Black storm-petrel & least storm-petrel | 0.78 | 0.25 | 0.23 | 0.40 | 0.25 | 0.18 |
| Leach's storm-petrel & least storm-petrel | 1 | 0.21 | 0.21 | 0.84 | 0.72 | 0.63 |

Table S6. Pairwise comparison of the standard Bayesian ellipse areas (SEA_B) that determine the probability that one ellipse is smaller or larger than another for the black storm-petrels (*Hydrobates melania*, BLSP), Leach’s storm-petrels (*Hydrobates leucorhous*, LESP), and least storm-petrels (*Hydrobates microsoma*, LSTP) on San Benito Oeste Island, Mexico, during breeding seasons of 2012–2013, Significant values (> 0.95 or < 0.05) are shown in bold.

| Species pair | 2012 | 2013 |
|---|---|---|
| Blood | Probability sp1. smaller than sp.2 | Probability sp1. smaller than sp.2 |
| Black storm-petrel & Leach’s storm-petrel | 0.6 | 0.01 |
| Black storm-petrel & least storm-petrel | 0.38 | 0.68 |
| Leach’s storm-petrel & Least storm-petrel | 0.24 | 0.99 |
| Primary feather P1 | | |
| Black storm-petrel & Leach’s storm-petrel | 0.45 | 0.11 |
| Black storm-petrel & least storm-petrel | 0.53 | 0.23 |
| Leach’s storm-petrel & least storm-petrel | 0.58 | 0.66 |
| Primary feather P6 | | |
| Black storm-petrel & Leach’s storm-petrel | 0.33 | 0.19 |
| Black storm-petrel & least storm-petrel | 0.99 | 1 |
| Leach’s storm-petrel & least storm-petrel | 0.99 | 1 |
| Undertail cover feather | | |
| Black storm-petrel & Leach’s storm-petrel | 0.10 | 0.83 |
| Black storm-petrel & least storm-petrel | 1 | 0.93 |
| Leach’s storm-petrel & least storm-petrel | 1 | 0.69 |

Table S7. Ellipse area overlap (%) of breeding phases (pre-laying, incubation, and chick-rearing) and age-related (chick-rearing adults and chicks) of the black storm-petrels (*Hydrobates melania*) and least storm-petrels (*H. microsoma*) on San Benito Oeste Island, Mexico, during breeding seasons of 2012–2013 calculated in SIBER (Stable Isotope Bayesian Ellipses in R; Jackson et al. 2011). Significant values (≥ 0.50) are shown in bold. Empty cells mean we did not collect samples from incubating adults of *H. melania* in 2013 and neither from *H. microsoma* adults and chicks in 2012.

| Stage pair | 2012 | | | 2013 | | |
|----------------------------|------------------------------|------------------------------|--------------------------------------|------------------------------|------------------------------|--------------------------------------|
| | % of niche area overlap sp.1 | % of niche area overlap sp.2 | % of niche area overlap both species | % of niche area overlap sp.1 | % of niche area overlap sp.2 | % of niche area overlap both species |
| Black storm-petrel | | | | | | |
| Pre-laying & incubation | 0.02 | 0.05 | 0.02 | | | |
| Pre-laying & chick-rearing | 0.001 | 0.002 | 0.0006 | 0.001 | 1 | 0.001 |
| Incubation & chick-rearing | 0.43 | 0.66 | 0.35 | | | |
| Adults & chicks | 0.60 | 0.37 | 0.30 | 0.25 | 0.32 | 0.16 |
| Least storm-petrel | | | | | | |
| Adults & chicks | 0.31 | 0.91 | 0.30 | | | |

Table S8. Pairwise comparison of the standard Bayesian ellipse areas (SEA_B) that determine the probability that one ellipse is smaller than another with regard to breeding phases (pre-laying, incubation, and chick-rearing) and age (chick-rearing adults and chicks) of the black storm-petrels (*Hydrobates melania*) and least storm-petrels (*Hydrobates microsoma*) on San Benito Oeste Island, Mexico, during breeding seasons of 2012–2013. Significant values (> 0.95 or < 0.05) are shown in bold. Empty cells mean we did not collect samples from incubating adults of *H. melania* in 2013 and neither from *H. microsoma* adults and chicks in 2012.

| Stage pair | 2012 | 2013 |
|----------------------------|--------------|--------------------|
| Black storm-petrel | | |
| Pre-laying & incubation | 0.005 | |
| Pre-laying & chick-rearing | 0.13 | 0 |
| Incubation & chick-rearing | 0.07 | |
| Adults & chicks | 0.89 | 0.24 |
| Least storm-petrel | | |
| Adults & chicks | | 5×10^{-4} |

Table S9. Stable carbon ($\delta^{13}\text{C}$) and nitrogen isotopes ($\delta^{15}\text{N}$) values of euphausiids collected from the IMECOCAL (Mexican Research Program of the California Current), CAPEGOLCA (Small Pelagic Fish Schools in the Gulf of California), and GOLCA (Gulf of California) cruises. Samples were preserved in formalin. Values of $\delta^{13}\text{C}$ are not corrected.

| Cruise | Station | Date | Longitude | Latitude | Species | $\delta^{13}\text{C}$ | $\delta^{15}\text{N}$ | C:N |
|----------|---------|--------|-----------|----------|--------------------------------|-----------------------|-----------------------|-----|
| IMECOCAL | 117.50 | Jul-97 | -116.237 | 28.129 | <i>Euphausia gibboides</i> | -22.9 | 10.6 | 4.2 |
| IMECOCAL | 117.55 | Jul-97 | -116.554 | 27.960 | <i>Euphausia gibboides</i> | -22.8 | 11.9 | 4.3 |
| IMECOCAL | 117.35 | Sep-98 | -115.262 | 28.624 | <i>Nematoscelis difficilis</i> | -22.3 | 11.0 | 4.1 |
| IMECOCAL | 117.50 | Sep-98 | -116.237 | 28.129 | <i>Euphausia eximia</i> | -21.7 | 7.3 | 4.2 |
| IMECOCAL | 117.55 | Sep-98 | -116.554 | 27.960 | <i>Euphausia gibboides</i> | -22.5 | 8.3 | 4.1 |
| IMECOCAL | 117.75 | Sep-98 | -117.850 | 27.267 | <i>Euphausia gibboides</i> | -22.4 | 8.4 | 4.2 |
| IMECOCAL | 117.35 | Aug-98 | -115.262 | 28.624 | <i>Nyctiphanes simplex</i> | -22.3 | 11.8 | 4.1 |
| IMECOCAL | 117.35 | Oct-99 | -115.262 | 28.624 | <i>Nematoscelis difficilis</i> | -21.9 | 13.1 | 4.4 |
| IMECOCAL | 117.50 | Oct-99 | -116.237 | 28.129 | <i>Euphausia eximia</i> | -22.3 | 8.0 | 4.6 |
| IMECOCAL | 117.55 | Oct-99 | -116.554 | 27.960 | <i>Euphausia gibboides</i> | -22.4 | 10.0 | 4.4 |
| IMECOCAL | 117.60 | Oct-99 | -116.884 | 27.790 | <i>Euphausia gibboides</i> | -22.4 | 9.7 | 4.6 |
| IMECOCAL | 117.75 | Oct-99 | -117.850 | 27.267 | <i>Euphausia gibboides</i> | -22.6 | 9.3 | 4.5 |

Table S9. (cont.)

| Cruise | Station | Date | Longitude | Latitude | Species | $\delta^{13}\text{C}$ | $\delta^{15}\text{N}$ | C:N |
|---------------|----------------|-------------|------------------|-----------------|--------------------------------|---|---|------------|
| IMECOCAL | 117.80 | Oct-99 | -118.053 | 27.092 | <i>Euphausia gibboides</i> | -22.6 | 10.1 | 4.5 |
| IMECOCAL | 117.35 | Jul-00 | -115.262 | 28.624 | <i>Nematoscelis difficilis</i> | -21.0 | 13.0 | 4.4 |
| IMECOCAL | 117.40 | Jul-00 | -115.588 | 28.458 | <i>Nematoscelis difficilis</i> | -21.2 | 13.5 | 4.2 |
| IMECOCAL | 117.45 | Jul-00 | -115.919 | 28.288 | <i>Nematoscelis difficilis</i> | -21.4 | 13.1 | 4.3 |
| IMECOCAL | 117.65 | Jul-00 | -117.200 | 27.617 | <i>Euphausia gibboides</i> | -22.9 | 10.3 | 4.0 |
| IMECOCAL | 117.70 | Jul-00 | -117.562 | 27.485 | <i>Euphausia gibboides</i> | -22.9 | 9.9 | 4.1 |
| IMECOCAL | 117.80 | Jul-00 | -118.053 | 27.092 | <i>Euphausia gibboides</i> | -22.8 | 10.4 | 4.2 |
| IMECOCAL | 117.65 | Oct-00 | -117.200 | 27.617 | <i>Euphausia gibboides</i> | -23.0 | 11.3 | 4.3 |
| IMECOCAL | 117.70 | Oct-00 | -117.562 | 27.485 | <i>Euphausia gibboides</i> | -22.6 | 8.8 | 4.4 |
| IMECOCAL | 117.75 | Oct-00 | -117.850 | 27.267 | <i>Euphausia gibboides</i> | -22.5 | 8.5 | 4.5 |
| IMECOCAL | 117.30 | Oct-01 | -114.931 | 28.794 | <i>Nyctiphanes simplex</i> | -22.5 | 12.0 | 4.2 |
| IMECOCAL | 117.40 | Oct-01 | -115.588 | 28.458 | <i>Nyctiphanes simplex</i> | -23.6 | 12.3 | 5.4 |
| IMECOCAL | 117.35 | May-05 | -115.262 | 28.624 | <i>Nyctiphanes simplex</i> | -20.2 | 12.8 | 3.9 |
| IMECOCAL | 117.35 | May-05 | -115.262 | 28.624 | <i>Euphausia pacifica</i> | -19.3 | 11.7 | 4.1 |

Table S9. (cont.)

| Cruise | Station | Date | Longitude | Latitude | Species | $\delta^{13}\text{C}$ | $\delta^{15}\text{N}$ | C:N |
|---------------|----------------|-------------|------------------|-----------------|--------------------------------|---|---|------------|
| IMECOCAL | 117.35 | May-05 | -115.262 | 28.624 | <i>Thysanoessa spinifera</i> | -19.5 | 13.2 | 4.6 |
| IMECOCAL | 117.40 | May-05 | -115.588 | 28.458 | <i>Nematoscelis difficilis</i> | -20.5 | 14.8 | 4.5 |
| IMECOCAL | 117.40 | May-05 | -115.588 | 28.458 | <i>Nyctiphanes simplex</i> | -21.0 | 11.7 | 4.4 |
| IMECOCAL | 117.45 | May-05 | -115.919 | 28.288 | <i>Nyctiphanes simplex</i> | -21.1 | 11.7 | 4.3 |
| IMECOCAL | 117.50 | May-05 | -116.237 | 28.129 | <i>Euphausia gibboides</i> | -21.4 | 11.4 | 4.7 |
| IMECOCAL | 117.55 | May-05 | -116.554 | 27.960 | <i>Nematoscelis difficilis</i> | -21.1 | 13.2 | 5.0 |
| IMECOCAL | 117.55 | May-05 | -116.554 | 27.960 | <i>Euphausia gibboides</i> | -21.6 | 12.5 | 4.3 |
| IMECOCAL | 117.55 | May-05 | -116.554 | 27.960 | <i>Euphausia eximia</i> | -21.5 | 11.1 | 4.0 |
| IMECOCAL | 117.60 | May-05 | -116.884 | 27.790 | <i>Nematoscelis difficilis</i> | -20.3 | 13.9 | 3.9 |
| IMECOCAL | 100.35 | Jul-10 | -117.116 | 31.519 | <i>Euphausia pacifica</i> | -20.6 | 10.7 | 3.8 |
| IMECOCAL | 100.35 | Jul-10 | -117.116 | 31.519 | <i>Nematoscelis difficilis</i> | -21.1 | 12.8 | 3.9 |
| IMECOCAL | 100.40 | Jul-10 | -117.453 | 31.353 | <i>Nematoscelis difficilis</i> | -21.7 | 12.9 | 4.0 |
| IMECOCAL | 100.40 | Jul-10 | -117.453 | 31.353 | <i>Euphausia pacifica</i> | -21.6 | 11.3 | 3.9 |
| IMECOCAL | 100.60 | Jul-10 | -118.792 | 30.686 | <i>Nematoscelis difficilis</i> | -22.8 | 12.6 | 5.0 |

Table S9. (cont.)

| Cruise | Station | Date | Longitude | Latitude | Species | $\delta^{13}\text{C}$ | $\delta^{15}\text{N}$ | C:N |
|---------------|----------------|-------------|------------------|-----------------|--------------------------------|---|---|------------|
| IMECOCAL | 100.60 | Jul-10 | -118.792 | 30.686 | <i>Euphausia pacifica</i> | -24.4 | 10.5 | 3.6 |
| IMECOCAL | 103.60 | Jul-10 | -118.410 | 30.114 | <i>Euphausia recurva</i> | -23.8 | 12.3 | 3.7 |
| IMECOCAL | 103.60 | Jul-10 | -118.410 | 30.114 | <i>Euphausia pacifica</i> | -24.1 | 10.9 | 4.5 |
| IMECOCAL | 107.60 | Jul-10 | -118.022 | 29.525 | <i>Euphausia gibboides</i> | -22.8 | 11.3 | 3.2 |
| IMECOCAL | 110.35 | Jul-10 | -115.995 | 29.786 | <i>Euphausia pacifica</i> | -23.0 | 11.5 | 4.9 |
| IMECOCAL | 110.35 | Jul-10 | -115.995 | 29.786 | <i>Nematoscelis difficilis</i> | -22.8 | 13.3 | 4.0 |
| IMECOCAL | 110.40 | Jul-10 | -116.328 | 29.619 | <i>Euphausia eximia</i> | -22.3 | 12.8 | 4.9 |
| IMECOCAL | 110.60 | Jul-10 | -117.644 | 28.953 | <i>Nematoscelis difficilis</i> | -23.1 | 12.5 | 5.3 |
| IMECOCAL | 113.60 | Jul-10 | -117.271 | 28.380 | <i>Euphausia eximia</i> | -22.5 | 12.5 | 4.6 |
| IMECOCAL | 113.60 | Jul-10 | -117.271 | 28.380 | <i>Nematoscelis difficilis</i> | -21.2 | 13.5 | 4.7 |
| IMECOCAL | 120.45 | Jul-10 | -115.547 | 27.719 | <i>Nematoscelis difficilis</i> | -20.4 | 14.6 | 4.7 |
| IMECOCAL | 120.45 | Jul-10 | -115.547 | 27.719 | <i>Thysanoessa spinifera</i> | -19.4 | 14.1 | 4.8 |
| IMECOCAL | 120.55 | Jul-10 | -116.195 | 27.386 | <i>Nematoscelis difficilis</i> | -20.7 | 14.5 | 4.7 |
| IMECOCAL | 123.60 | Jul-10 | -116.148 | 26.649 | <i>Euphausia gibboides</i> | -21.1 | 12.8 | 4.4 |

Table S9. (cont.)

| Cruise | Station | Date | Longitude | Latitude | Species | $\delta^{13}\text{C}$ | $\delta^{15}\text{N}$ | C:N |
|---------------|----------------|-------------|------------------|-----------------|--------------------------------|---|---|------------|
| IMECOCAL | 130.35 | Jul-10 | -113.809 | 26.324 | <i>Euphausia eximia</i> | -21.2 | 13.6 | 4.5 |
| IMECOCAL | 130.60 | Jul-10 | -115.404 | 25.490 | <i>Euphausia gibboides</i> | -22.8 | 9.7 | 4.2 |
| IMECOCAL | 117.30 | Feb-13 | -114.933 | 28.788 | <i>Thysanoessa spinifera</i> | -18.7 | 13.7 | 3.8 |
| IMECOCAL | 117.35 | Feb-13 | -115.271 | 28.632 | <i>Nematoscelis difficilis</i> | -20.0 | 14.1 | 4.0 |
| IMECOCAL | 117.40 | Feb-13 | -115.588 | 28.458 | <i>Nematoscelis difficilis</i> | -20.0 | 14.3 | 4.6 |
| IMECOCAL | 117.30 | Feb-14 | -114.933 | 28.788 | <i>Nyctiphanes simplex</i> | -18.6 | 12.6 | 4.1 |
| IMECOCAL | 117.35 | Feb-14 | -115.262 | 28.624 | <i>Thysanoessa spinifera</i> | -18.4 | 14.1 | 4.1 |
| IMECOCAL | 117.40 | Feb-14 | -115.588 | 28.458 | <i>Nyctiphanes simplex</i> | -21.0 | 12.6 | 4.7 |
| IMECOCAL | 117.60 | Feb-14 | -116.889 | 27.793 | <i>Euphausia eximia</i> | -20.8 | 12.7 | 4.7 |
| CAPEGOLCA | VIII E2 | Jun-13 | -109.545 | 25.618 | <i>Nematoscelis difficilis</i> | -19.8 | 16.9 | 3.8 |
| CAPEGOLCA | VIII E8 | Jun-13 | -110.363 | 26.943 | <i>Nematoscelis difficilis</i> | -19.6 | 17.3 | 4.1 |
| CAPEGOLCA | VIII E14 | Jun-13 | -112.444 | 28.053 | <i>Nematoscelis difficilis</i> | -20.3 | 17.7 | 4.1 |
| CAPEGOLCA | VIII E19 | Jun-13 | -112.040 | 28.168 | <i>Nematoscelis difficilis</i> | -19.9 | 16.8 | 3.9 |
| CAPEGOLCA | VIII E22 | Jun-13 | -112.168 | 28.297 | <i>Nematoscelis difficilis</i> | -19.4 | 17.2 | 3.6 |

Table S9 (cont.)

| Cruise | Station | Date | Longitude | Latitude | Species | $\delta^{13}\text{C}$ | $\delta^{15}\text{N}$ | C:N |
|---------------|----------------|-------------|------------------|-----------------|--------------------------------|---|---|------------|
| CAPEGOLCA | VIII E28 | Jun-13 | -112.718 | 28.875 | <i>Nematoscelis difficilis</i> | -20.2 | 16.6 | 4.2 |
| CAPEGOLCA | VIII E35 | Jun-13 | -113.255 | 28.945 | <i>Nematoscelis difficilis</i> | -20.0 | 16.1 | 3.8 |
| CAPEGOLCA | VIII E41 | Jun-13 | -112.655 | 29.630 | <i>Nyctiphanes simplex</i> | -19.0 | 15.3 | 3.9 |
| CAPEGOLCA | VIII E48 | Jun-13 | -113.082 | 29.317 | <i>Nematoscelis difficilis</i> | -20.9 | 17.7 | 4.0 |
| CAPEGOLCA | VIII E55 | Jun-13 | -112.602 | 28.505 | <i>Nematoscelis difficilis</i> | -20.2 | 16.6 | 3.9 |
| CAPEGOLCA | VIII E61 | Jun-13 | -112.671 | 27.863 | <i>Nematoscelis difficilis</i> | -19.4 | 17.2 | 3.9 |
| CAPEGOLCA | VIII E69 | Jun-13 | -112.204 | 27.439 | <i>Nematoscelis difficilis</i> | -20.0 | 17.4 | 4.2 |
| CAPEGOLCA | VIII E77 | Jun-13 | -111.675 | 26.854 | <i>Nematoscelis difficilis</i> | -19.6 | 17.4 | 3.9 |
| CAPEGOLCA | VIII E86 | Jun-13 | -111.054 | 27.056 | <i>Nematoscelis difficilis</i> | -20.1 | 17.4 | 3.9 |
| CAPEGOLCA | VIII E93 | Jun-13 | -111.042 | 26.161 | <i>Nematoscelis difficilis</i> | -19.6 | 17.6 | 3.8 |
| CAPEGOLCA | VII E2 | Aug-12 | -109.672 | 26.280 | <i>Nematoscelis difficilis</i> | -20.5 | 17.7 | 4.0 |
| CAPEGOLCA | VII E12 | Aug-12 | -111.180 | 27.835 | <i>Nematoscelis difficilis</i> | -20.1 | 17.4 | 4.3 |
| CAPEGOLCA | VII E24 | Aug-12 | -112.883 | 29.480 | <i>Nematoscelis difficilis</i> | -19.2 | 17.5 | 4.0 |
| CAPEGOLCA | VII E26 | Aug-12 | -113.584 | 29.285 | <i>Nematoscelis difficilis</i> | -19.4 | 17.2 | 4.1 |

Table S9. (cont.)

| Cruise | Station | Date | Longitude | Latitude | Species | $\delta^{13}\text{C}$ | $\delta^{15}\text{N}$ | C:N |
|---------------|----------------|-------------|------------------|-----------------|--------------------------------|---|---|------------|
| CAPEGOLCA | VII E28 | Aug-12 | -113.275 | 28.953 | <i>Nematoscelis difficilis</i> | -19.1 | 17.1 | 4.2 |
| CAPEGOLCA | VII E40 | Aug-12 | -112.649 | 27.881 | <i>Nematoscelis difficilis</i> | -19.3 | 16.9 | 3.7 |
| CAPEGOLCA | VII E40 | Aug-12 | -112.649 | 27.881 | <i>Nyctiphanes simplex</i> | -19.0 | 15.2 | 3.8 |
| CAPEGOLCA | VII E45 | Aug-12 | -111.517 | 26.706 | <i>Nematoscelis difficilis</i> | -20.4 | 17.7 | 3.9 |
| CAPEGOLCA | VII E57 | Aug-12 | -112.493 | 24.818 | <i>Nyctiphanes simplex</i> | -22.3 | 14.6 | 3.8 |
| CAPEGOLCA | VII E61 | Aug-12 | -112.094 | 24.413 | <i>Nyctiphanes simplex</i> | -22.2 | 14.8 | 3.9 |
| CAPEGOLCA | VII E66 | Aug-12 | -110.536 | 25.234 | <i>Nematoscelis difficilis</i> | -19.9 | 17.4 | 3.6 |
| CAPEGOLCA | VII E71 | Aug-12 | -112.504 | 27.761 | <i>Nematoscelis difficilis</i> | -19.8 | 17.7 | 3.7 |
| CAPEGOLCA | VII E77 | Aug-12 | -111.151 | 26.971 | <i>Nematoscelis difficilis</i> | -20.6 | 18.1 | 4.0 |
| CAPEGOLCA | VIII SR6 | Jun-13 | -112.231 | 27.391 | <i>Nematoscelis difficilis</i> | -19.8 | 17.7 | 4.1 |
| CAPEGOLCA | IV E82 | Mar-13 | -111.296 | 26.290 | <i>Nematoscelis difficilis</i> | -20.1 | 16.1 | 4.0 |
| CAPEGOLCA | IV E18 | Mar-13 | -112.750 | 28.133 | <i>Nyctiphanes simplex</i> | -19.7 | 13.3 | 3.9 |
| GOLCA | B05 | Jul-10 | -110.265 | 25.721 | <i>Euphausia distingueda</i> | -21.3 | 14.2 | 3.5 |
| GOLCA | B09 | Jul-10 | -109.815 | 26.077 | <i>Euphausia distingueda</i> | -20.8 | 14.1 | 3.7 |

Table S9. (cont.)

| Cruise | Station | Date | Longitude | Latitude | Species | $\delta^{13}\text{C}$ | $\delta^{15}\text{N}$ | C:N |
|---------------|----------------|-------------|------------------|-----------------|---------------------------------|---|---|------------|
| GOLCA | H04 | Jul-10 | -109.165 | 23.954 | <i>Euphausia distinguisheda</i> | -22.0 | 13.9 | 3.9 |
| GOLCA | K03 | Jul-10 | -109.060 | 23.856 | <i>Euphausia distinguisheda</i> | -21.3 | 14.0 | 4.0 |
| GOLCA | A03 | Jul-10 | -110.508 | 25.929 | <i>Euphausia eximia</i> | -20.8 | 15.2 | 3.6 |
| GOLCA | A04 | Jul-10 | -110.397 | 26.015 | <i>Euphausia eximia</i> | -20.9 | 15.4 | 4.2 |
| GOLCA | B04 | Jul-10 | -110.378 | 25.635 | <i>Euphausia eximia</i> | -21.0 | 15.1 | 3.9 |
| GOLCA | B10 | Jul-10 | -109.703 | 26.167 | <i>Euphausia lamelligera</i> | -21.3 | 15.0 | 3.9 |
| GOLCA | C06 | Jul-10 | -109.977 | 25.479 | <i>Euphausia eximia</i> | -20.3 | 15.4 | 4.1 |
| GOLCA | C07 | Jul-10 | -109.866 | 25.567 | <i>Euphausia lamelligera</i> | -21.1 | 15.5 | 3.8 |
| GOLCA | H04 | Jul-10 | -109.165 | 23.954 | <i>Euphausia eximia</i> | -21.8 | 14.6 | 3.9 |
| GOLCA | H06 | Jul-10 | -108.946 | 24.137 | <i>Euphausia eximia</i> | -21.3 | 13.7 | 3.9 |
| GOLCA | K04 | Jul-10 | -109.160 | 23.955 | <i>Euphausia eximia</i> | -21.6 | 13.9 | 4.0 |
| GOLCA | K05 | Jul-10 | -109.260 | 24.055 | <i>Euphausia eximia</i> | -21.8 | 14.5 | 3.9 |
| GOLCA | H10 | Jul-10 | -108.511 | 24.499 | <i>Euphausia eximia</i> | -22.1 | 14.7 | 3.8 |