

# Ryan Carle

Science Director, Oikonos Ecosystem Knowledge ▪ Email: [ryan@oikonos.org](mailto:ryan@oikonos.org) ▪  
[www.oikonos.org](http://www.oikonos.org) ▪ [www.researchgate.net/profile/Ryan-Carle](http://www.researchgate.net/profile/Ryan-Carle)

## Education

M.S. in Marine Science, Moss Landing Marine Labs, San Jose State University August 2014  
B.A. in Environmental Studies, University of California, Santa Cruz June 2007

## Merits and Awards

Robert and Patricia Switzer Foundation Fellow in Environmental Leadership, 2012  
Publication award for Outstanding Contribution to Conservation, Waterbird Society, 2021

## Employment History

Science Director, Oikonos Ecosystem Knowledge (2021-current)

Lecturer, Environmental Studies Dept., UC Santa Cruz (2016-2023)  
(concurrent with Oikonos positions)

Science Manager, Oikonos Ecosystem Knowledge (2018-2020)

Año Nuevo Island Project Manager, Oikonos Ecosystem Knowledge (2013-2017)

Ecologist, Año Nuevo Island Project, Oikonos Ecosystem Knowledge (2009-2013)

Natural Resource Crew, CA State Parks Santa Cruz District (2008-2009)

Restoration and Stewardship Crew, Friends of the Inyo (2008)

Field Biologist, Point Reyes Bird Observatory (2008)

## Publications and Technical Reports related to Phalaropes & Mono Lake

**Carle, R. D.**, M. Castellino, K. Tarr, A. E. McKellar, S. M. Miller, R. J. Larson, *et al.* (2026). Wilson's Phalarope (*Phalaropus tricolor*), version 2.0. In *Birds of the World* (N. D. Sly, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.wilpha.02>

Castellino, M., **Carle, R.**, Lesterhuis, A. & R. Clay. (2024). [Conservation Plan for Wilson's Phalarope \(\*Phalaropus tricolor\*\) Version 2.0](#). Manomet Center for Conservation Sciences, Manomet, Massachusetts.

Center for Biological Diversity, **Carle R**, Williams TT, Abbott BW, Larson R, Van Schmidt ND, *et al.* 2024. Petition to the U.S. Fish and Wildlife Service to list Wilson's phalarope (*Phalaropus tricolor*) under the Endangered Species Act as a threatened species and to concurrently designate critical habitat. Center for Biological Diversity.

# Ryan Carle

Science Director, Oikonos Ecosystem Knowledge ▪ Email: [ryan@oikonos.org](mailto:ryan@oikonos.org) ▪  
[www.oikonos.org](http://www.oikonos.org) ▪ [www.researchgate.net/profile/Ryan-Carle](http://www.researchgate.net/profile/Ryan-Carle)

**Carle, R.D.**, Tarr, K., Neill, J., House, D., Larson, R., McKellar, A.E., Ng, J., Prather, M., Reuland, J., Rubega, M., Tobiason, H., & N.D. Van Schmidt. 2024. [Coordinated phalarope surveys at western North American staging sites 2019–2023](#).

**Carle, R.**, Burns, G., Caruso, K., House, D. Larson, R., Lewis, A., McKellar, A., Neill, J., Prather, M., Reuland, J. Margaret, R. and Tarr, K. (2023). [Coordinated phalarope surveys at western North American staging sites, 2019-2022](#).

**Carle, R.**, Burns, G., Clapp, M., Caruso, K., House, D., Larson, R. *et al.* (2022) [Coordinated phalarope surveys at western North American staging sites, 2019-2021](#).

**Carle, R.**, Burns, G., Hecoeks, S., House, D., Larson, R., Lewis, A., *et al.* (2021) [Coordinated phalarope surveys at western North American staging sites, 2019-2020](#).

**Carle, R.** & Rubega, M. (2020). [Phalarope Surveys at Mono Lake 2020 Report](#).

**Carle, R.** & Rubega, M. (2019). [Phalarope Surveys at Mono Lake 2019 Report](#).

## Other peer-reviewed publications & chapters:

**Carle, R.**, Varela, T., Colodro, V., Clark-Wolf, T. J., Felis, J., Hodum, P., ... & Lopez, V. (2024). Breeding population size of the Pink-footed Shearwater *Ardenna creatopus* on Isla Mocha, Chile. *Marine Ornithology* 52: 85-96.

**Carle, R.**, S. de Rodt, P. González, F. Rojas, F. Medrano, E. Hagen, C.A. Wolf, M. Garrido, and J. Sparks (2024). *Juan Fernandez Firecrown* (*Sephanoides fernandensis*), version 2.0. In *Birds of the World* (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.  
<https://doi.org/10.2173/bow.juffir1.02>

Weinstein, A., Liebezeit, J., Orr, D., **Carle, R.**, & T.D. Meehan. (2024). Black Oystercatcher *Haematopus bachmani* productivity in California and Oregon and the effects of nest site and environmental covariates. *Marine Ornithology*, 52(2).

Clark, B. L., Carneiro, A. P., Pearmain, E. J., Rouyer, M. M., Clay, T. A....**Carle, R.**, ...et al.. (2023). Global assessment of marine plastic exposure risk for oceanic birds. *Nature communications*, 14(1), 3665.

Beck, J., **Carle, R. D.**, Nevins, H., De La Cruz, S. E., & Donnelly-Greenan, E. (2023). Demographics and gross pathology of Scoters and Scaups killed by the Cosco Busan oil spill in California. *Marine Ornithology*, 51(1).

**Carle, R.**, Colodro, V., Felis, J., Adams, J., and Hodum, P.J. (2022). Pink-footed Shearwater (*Ardenna creatopus*), version 2.0. In *Birds of the World* (P. G. Rodewald and B. K. Keeney, Eds). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.pifshe.02>

# Ryan Carle

Science Director, Oikonos Ecosystem Knowledge ▪ Email: [ryan@oikonos.org](mailto:ryan@oikonos.org) ▪ [www.oikonos.org](http://www.oikonos.org) ▪ [www.researchgate.net/profile/Ryan-Carle](http://www.researchgate.net/profile/Ryan-Carle)

**Carle, R.**, Fleishman, A. B., Varela, T., Manríquez Angulo, P., De Rodt, G., Hodum, P., ... & Gutiérrez-Guzmán, H. (2021). Introduced and native vertebrates in pink-footed shearwater (*Ardenna creatopus*) breeding colonies in Chile. *PloS one* 16(7), e0254416.

Beal, M., Dias, M. P., Phillips, R.A., Opper, S., Hazin, C., Pearmain, E.J., Adams, J.A, et al... **Carle, R.D.**, et al. (2021). Global political responsibility for the conservation of albatrosses and large petrels. *Science Advances* 7(10): eabd7225.

**Carle, R.**, Hester, M., Coletta, E., & Beck, J. (2020). Cassin's Auklet (*Ptychoramphus aleuticus*) Population Size, Reproduction, and Habitat Management on a Recently Colonized Island in California, USA. *Waterbirds* 42:366-379

Garcia-diaz, P., Hodum, P., Colodro, V., Hester, M, and **R. Carle**. (2020). Effects of alien mammal assemblages on the burrow occupancy and hatching success of the vulnerable pink-footed shearwater in Chile. *Environmental Conservation*, 1-9.

Hipfner, J., Prill, M., Studholme, K., Domalik, A., Tucker, S., Jardine, C., Maftai, M., Wright, K. Beck, J., Bradley, R., **Carle, R.** *et al.* (2020). Geolocator tagging reveals a link between distributions in the non-breeding season and population genetic structure in a sentinel North Pacific seabird. *PlosOne* 15(11), e0240056.

Thayer, J., Burr, Z., **Carle, R.**, Field, J. and P. Warzybok. (2020). Inter-annual variability in forage fish population size structure: selectivity of traditional vs. non-traditional sampling devices. *Fisheries Research* 234: 105801.

**Carle, R.**, Felis, J., Vega, R., Beck, J., Adams, J., López, V., et al. Overlap of pink-footed shearwaters and central Chilean purse-seine fisheries: implications for bycatch risk. (2019). *The Condor: Ornithological Applications* 121:1-13.

Felis, J. J., Adams, J., Hodum, P. J., **Carle, R.**, and V. Colodro (2019). Eastern Pacific migration strategies of Pink-footed Shearwaters *Ardenna creatopus*: Implications for fisheries interactions and international conservation. *Endangered Species Research* 39: 269-282.

Adams, J., Felis, J., Czapanskiy, M., **Carle, R.**, and P. Hodum. (2019). Diving behaviors of pink-footed shearwaters rearing chicks on Isla Mocha, Chile. *Marine Ornithology* 47: 17-24.

Ainley, D., Santora, J., Capitolo, P., Field, J., Beck, J., **Carle, R.**, et al. (2018). Ecosystem-based management affecting Brandt's Cormorant resources and populations in the central California Current region. *Biological Conservation* 217:407-418.

# Ryan Carle

Science Director, Oikonos Ecosystem Knowledge ▪ Email: [ryan@oikonos.org](mailto:ryan@oikonos.org) ▪ [www.oikonos.org](http://www.oikonos.org) ▪ [www.researchgate.net/profile/Ryan-Carle](http://www.researchgate.net/profile/Ryan-Carle)

Warzybok, P., Santora, J., Ainley, D., Bradley, R., Field, J., Capitolo, P., **Carle, R.**, et al. (2018). Prey switching and consumption by seabirds in the central California Current upwelling ecosystem: Implications for forage fish management. *Journal of Marine Systems* 185:25-39.

**Carle, R.**, Calleri, D., Beck, J., Halbert, P., and Hester, M. (2017). Egg depredation by Common Ravens negatively affects Pelagic Cormorant reproduction in central California. *Marine Ornithology* 157: 149-157.

**Carle, R.**, Beck, J. Colodro, V., and P. Hodum. (2016). Effects of cattle exclusion on vegetation in a breeding colony of Pink-footed Shearwaters on Robinson Crusoe Island, Chile. *Revista Chilena de Ornitología* 22: 184-193.

**Carle, R.**, J. Beck, D. Calleri, and M. Hester. (2015). Variability in seasonal and sex-specific diet in Rhinoceros Auklets in the central California Current system. *Journal of Marine Systems* 146:99-108.

## **M.S. Thesis:**

Carle, R. (2014). Seasonal and Sex-specific Diet in Rhinoceros Auklets. Moss Landing Marine Laboratories, San Jose State University.