

RIGHT WHALE NEWS

*An independent forum for right whale conservation and recovery,
publishing several times each year.*

Volume 29 Number 2

May 2021

Rebound ?

The spring meeting of the Southeast U.S. (SEUS) Right Whale Implementation Team typically provides a summary of the previous season. At a virtual meeting on Friday, 7 May 2021, Jen Jakush, Florida Fish and Wildlife Conservation Commission, summarized the field work conducted by the many organizations in the SEUS and provided the preliminary results for the 2020–21 SEUS calving season. With caution, lest we jinx ourselves, there were grounds for hope.

The collective efforts of researchers, agencies, managers, and funders resulted in 272 sightings of right whales from North Carolina to Florida (Figure 1). Preliminary analysis suggests that 62 individual or unique whales were identified, including 17 mother-calf (MC) pairs (Figure 2).

Of particular note, of the 17 MC pairs, six were first-time mothers—encouraging. In terms of both numbers and percentages, one must go back eight years for comparable results (Figure 3). We can reasonably infer that an increasing number of young females are arriving into a condition of reproductive fitness. On the other hand, the reported average calving interval (interval between births for a given female) stands at 9.5 years—a familiar number in recent years but considerably higher than the average 3–5 year intervals during most prior years (S.D. Kraus and R.M. Rolland, *The Urban Whale*, 2007, p. 180). A change in demographics also took place. While MC pairs were the most common demographic in recent years, during the 2020–21 season, the largest demographic was adult males (20). There were also adult females, juveniles, and yearlings (refer again to Figure 2). This finding is reminiscent of the period 2008–10 (see *RWN* March 2015 and May 2010) when more than 150 non-calving females, males, and juveniles flooded into the SEUS habitat. During this earlier period, SAGs (surface-active-groups) were common. In the 2020–21 season, nine SAGs were observed—again a hint of a rebound to some former events.

And finally, an inspection of Figure 4 suggests that for the four recent years, 2018 through 2021, calving is on the increase. We cautiously and hopefully await the 2021–22 season.

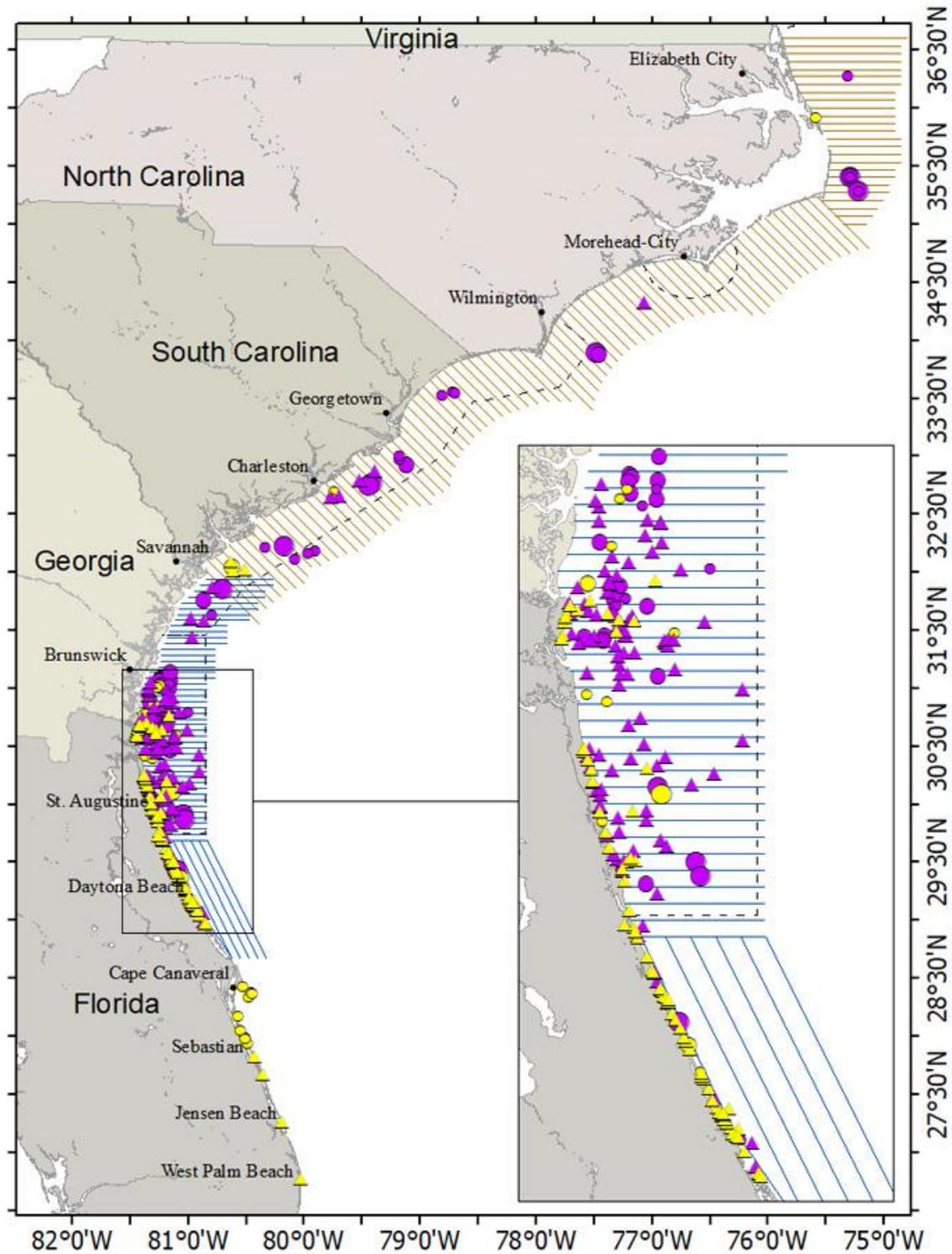


Figure 1. All SEUS right whale sightings for the 2021 season. Key: purple=EWS surveys, yellow=Volunteer sighting network or opportunistic. Triangles=MC pairs, circle size=number of individuals in the sighting. Lines=aerial survey tracks. There were 272 sightings from North Carolina to Florida. Source: Jakush, J., M. White, and K. Jackson (2021) Preliminary field results for the 2021 calving season. Presentation, SEIT meeting, 7 May 2021.

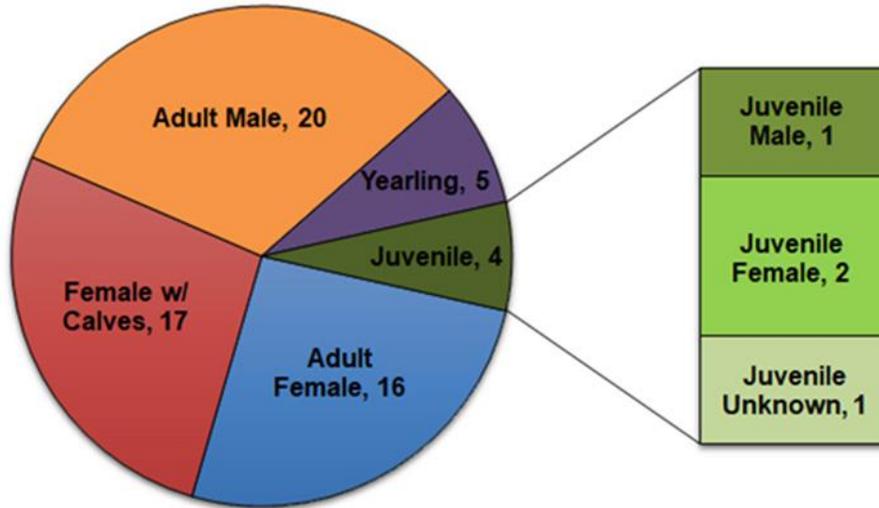


Figure 2. Individual right whales seen during the 2021 season—including all aerial, vessel, and land-based efforts. A total of 62 individual whales were identified (excluding calves). There were nine surface-active groups, comprised of 2, 3, 4, or 5 whales.

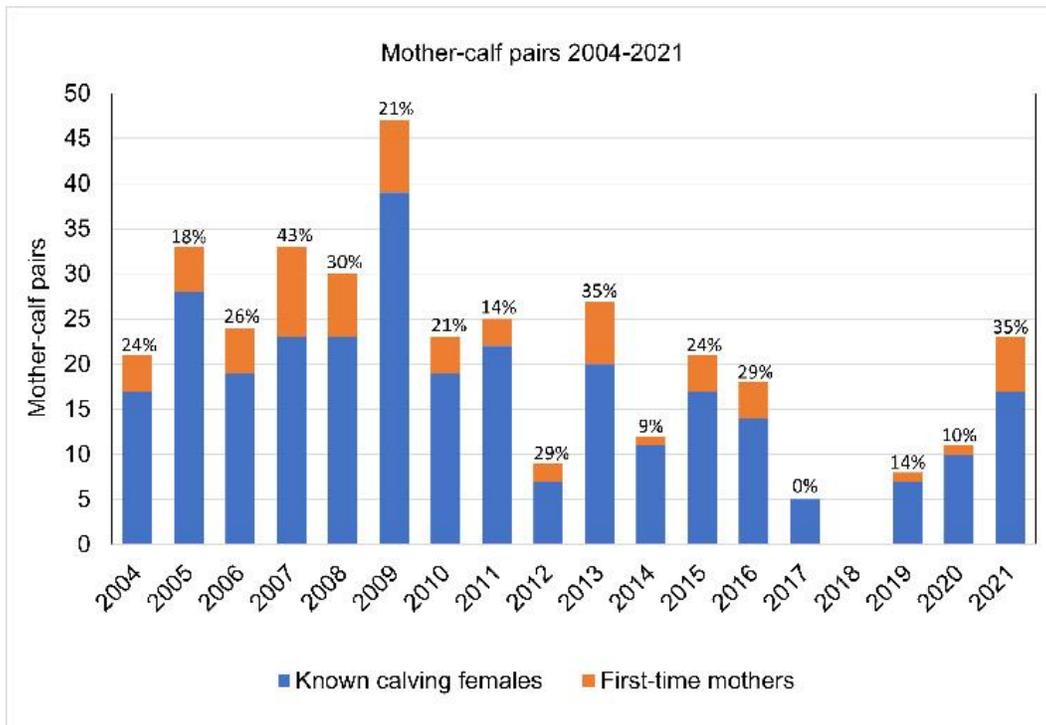


Figure 3. There was an increase in both the number and percentage of first-time mothers during the 2021 season. A number of factors likely result in a greater number of females entering into a condition of reproductive readiness.

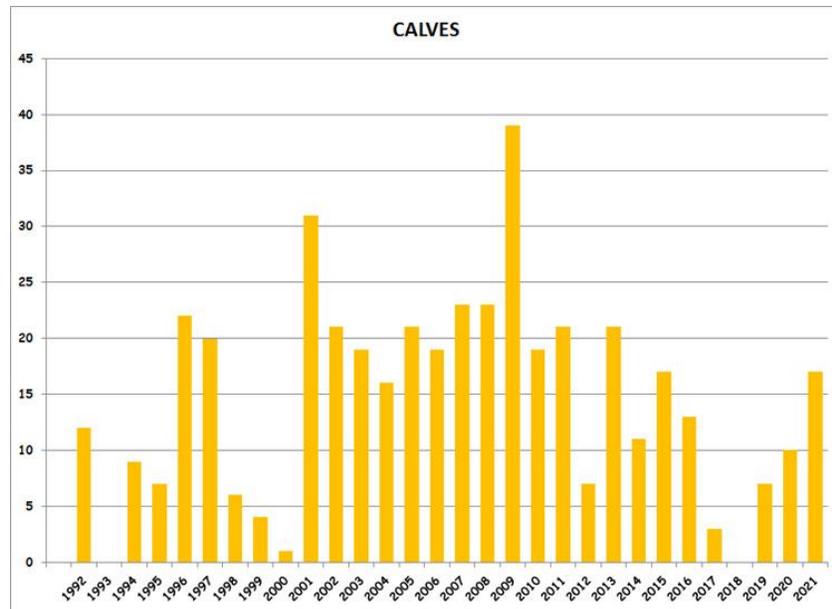


Figure 4. Calf births from 1992 through 2021. Within the biological variability, there are plateaus, downward trends, and upward trends. The years 2018 through 2021 may hint at an upward trend.

SnowCone: One Whale, One Story

Every whale has a story. Here’s one. It is illustrative and representative.

A calf was born to mother #1308 in 2005. The mother-calf pair was seen several times during the season. The calf was subsequently was entered into the Right Whale Catalog as #3560. As a juvenile, this individual returned to the southeastern U.S. calving grounds on several occasions.

On New Year’s Day, 1 January 2020, volunteers with the Marineland Right Whale Project sighted #3560, age 15, with her first calf (the calf was likely born off Georgia in the previous month). Recently acquired drone capabilities helped verify the identification. She became the “New Year’s Whale” and was sighted frequently.

Her popularity was enhanced when, following on another volunteer sighting on 8 March, she and her calf became a focus of a right whale documentary being filmed for the Canadian Broadcasting Network. (This film remains in production.)

Next, the pair gained further visibility when they traveled into the Gulf of Mexico, and returned. In April, they were off North Carolina and appeared to be heading north.

There were some dark clouds. Scars and peduncle marks suggested several earlier entanglements for #3560. Then, on the morning of 25 June 2020 (*RWN* August 2020) a floating

whale carcass was sighted off New Jersey. The dead whale was identified as the male calf of #3560.

It is uncertain whether or not whales grieve or experience pain and emotions (*e.g.*, see Moore and van der Hoop, 2012; Safina, 2015) but #3560 might have experienced both.

Her loss notwithstanding, #3560 continued north and was sighted in July 2020 in the Gulf of St. Lawrence.

Three months later, on 27 October 2020, in the annual whale-naming event by the North Atlantic Right Whale Consortium, #3560 was given the name *Snow Cone* (Figure 5).

Then, on 10 March 2021, #3560. *Snow Cone*, was sighted entangled off Cape Cod. Some line was removed but the entanglement was considered serious.

Next, on 10 May 2021, *Snow Cone* was reported entangled in the Gulf of St. Lawrence. The Campobello Whale Rescue Team (CWRT) responded on 11 May in company with a Department of Fisheries and Oceans (DFO) Fast Rescue Craft out of Shippagan, New Brunswick. DFO aerial survey planes provided aerial support searching the area around where the whale was last seen. *Snow Cone* was found midafternoon and the CWRT was able to shorten the rope trailing from the entangled whale and leave bitter ends of different lengths that will hopefully help *Snow Cone* shed the remaining gear trailing out of the left side of her mouth. DFO and CWRT will continue to monitor the whale's condition as further sightings are made.

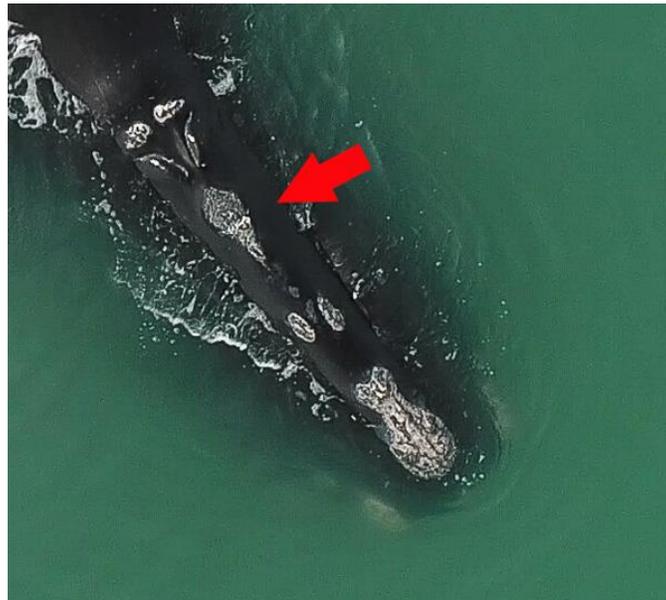


Figure 5. Right whale Catalog #3560, named *Snow Cone* at the annual Consortium meeting in October 2020. The arrow indicates the callosity feature from which the name is derived. Photo: S. Ellis, Marineland Right Whale Project.

References:

Moore, Michael, and Julie M. van der Hoop. 2012. The painful side of trap and fixed net fisheries: Chronic entanglement of large whales. *Journal of Marine Biology* 2012, article 230653, 4 pp. doi: 10.1155/2012/230653.

Safina, Carl 2015. *Beyond Words: What Animals Think and Feel*. Henry Holt and Co., New York. 480 pp.

Calendar

26–27 October 2021 (tentative dates). Annual meeting of the North Atlantic Right Whale Consortium. The meeting will be virtual. Future issues of *Right Whale News* will provide updates, as will www.narwc.org.

13–17 December 2021. 24th Biennial Biology of Marine Mammals Conference, Palm Beach County Convention Center, Palm Beach, Florida. For further information, see marinemammalscience.org. The conference theme is *A Sea Change: Transforming Science into Stewardship*. The conference will be hybrid, live and on-line. Abstract submission closed. Workshop proposals closed. Early bird registration, 11 August 2021.

6–7 November 2021. Annual Right Whale Festival. Main Beach, 32 N. Fletcher Ave., Fernandina Beach, Florida. See: rightwhalefestival.com. The Right Whale Festival will feature live music, exhibits promoting marine conservation with onsite marine mammal scientists, kid's activities, art and unique gifts, a silent auction, a beach clean-up, food trucks, and much more. This free festival takes place rain or shine.

Scientific Literature and Reports

Alzugaray, L., M. Di Martino, L. Beltramino, V.J. Rowntree, M. Sironi, and M.M. Uhart. 2020. Anthropogenic debris in the digestive tract of a southern right whale (*Eubalaena australis*) stranded in Golfo Nuevo, Argentina. *Marine Pollution Bulletin* 161:111738.

Baumgartner, M.F., K. Ball, J. Partan, L.-P. Pelletier, J. Bonnell, C. Hotchkin, P.J. Corkeron, and S.M.V. Parijs. 2021. Near real-time detection of low-frequency baleen whale calls from an autonomous surface vehicle: Implementation, evaluation, and remaining challenges. *Journal of the Acoustical Society of America* 149(5):2950-2962.

- Gavrilchuk, K., V. Lesage, S.M.E. Fortune, A.W. Trites, and S. Plourde. 2021. Foraging habitat of North Atlantic right whales has declined in the Gulf of St. Lawrence, Canada, and may be insufficient for successful reproduction. *Endangered Species Research* 44:113-136.
- Gowen, T.A., N.J. Crum, and J.J. Roberts. 2021. An open spatial capture-recapture model for estimating density, movement, and population dynamics from line-transect surveys. *Ecology and Evolution* early view DOI: 10:1002/ece3.7566.
- Graham, K.M., E.A. Burgess, and R.M. Rolland. 2021. Stress and reproductive events detected in North Atlantic right whale blubber using a simplified hormone extraction protocol. *Conservation Physiology* 9(1): coaa1 33.
- How, J.R., W.K. de la Mare, D.K. Coughran, M.C. Double, and S. de Lestang. 2021. Gear modifications reduced humpback whale entanglements in a commercial rock lobster fishery. *Marine Mammal Science* early view <https://onlinelibrary.wiley.com/doi/abs/10.1111/mms.12774>
- Ierardi, J.L., A. Veloso, and A. Mancina. 2021. Transcriptome analysis of cadmium exposure in kidney fibroblast cells of the North Atlantic right whale (*Eubalaena glacialis*). *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology* 242:108946.
- Koubrak, O., D.L. VanderZwaag, and B. Worm. 2021. Saving the North Atlantic right whale in a changing ocean: Gauging scientific and law and policy responses. *Ocean & Coastal Management* 200:105109.
- Moore, M.J., T.K. Rowles, D.A. Fauquier, J.D. Baker, I. Biedron, J.W. Durban, P.K. Hamilton, A.G. Henry, A.R. Knowlton, W.A. McLellan, C.A. Miller, R.M. Pace, III, H.M. Pettis, S. Raverty, R.M. Rolland, R.S. Schick, S.M. Sharp, C.R. Smith, L. Thomas, J.M. van der Hoop, and M.H. Ziccardi. 2021. Assessing North Atlantic right whale health: Threats, and development of tools critical for conservation of the species. *Diseases of Aquatic Organisms* 143:205-226.
- Pace, R.M. III, R. Williams, S.D. Kraus, A.R. Knowlton, and H.M. Pettis. 2021. Cryptic mortality of North Atlantic right whales. *Conservation Science and Practice* 3(2):e346.
- Padovese, B., F. Frazao, O.S. Kirsebom, and S. Matwin. 2021. Data augmentation for the classification of North Atlantic right whales upcalls. *Journal of the Acoustical Society of America* 149(4):2520-2530.
- Renault-Braga, E.P., K.R. Groch, and P.C. Simões-Lopes. 2021. Is there spatial segregation between reproductive groups of southern right whales along the coastline of southern Brazil? *Marine Mammal Science* early view. <https://doi.org/10.1111/mms.12797>
- Ross, C.H., D.E. Pendelton, B. Tupper, D. Brickman, M.A. Zani, C.A. Mayo, and N.R. Record. 2021. Projecting regions of North Atlantic right whale, *Eubalaena glacialis*, habitat suitability in the Gulf of Maine for the year 2050. *Elementa: Science of the Anthropocene* 9(1): 00058. DOI 10.1525/elements.2020.20.00058.
- Stachowitsch, M. 2019. *The Beachcomber's Guide to Marine Debris*. Springer Nature Switzerland AG, Cham, Switzerland.

- Terhune, J.M. and D. Killorn. 2021. A method for preliminary assessment of the masking potential of anthropogenic noise to baleen whale calls. *Aquatic Mammals* 47(3):283-291.
- Tortolini, V.M., M. Degradi, and M.A. Coscarella. 2021. Framing and communicating southern right whale – kelp gull biological interaction in Peninsula Valdés, Argentina: The effects of attribute frames on human’s perceptions and decision-making policies. *Marine Policy* 124:104314.
- Wu, C.-Y., D.P. Nowacek, A.E. Nousek-McGregor, R. McGregor, and L.E. Howle. 2021. Computational fluid dynamics of flow regime and hydrodynamic forces generated by a gliding North Atlantic right whale (*Eubalaena glacialis*). *Marine Mammal Science* early view. <https://doi.org/10.1111/mms.12798>

Right Whale News

Right Whale News is a publication of Associated Scientists at Woods Hole. It is disseminated online through the courtesy of the North Atlantic Right Whale Consortium. The Editor is Jim Hain. The Editorial board consists of Julie Albert, Robert Kenney, Hans Neuhauser, and Amy Whitt. The current and back issues of *Right Whale News* published between 1994 and 2021 are available at the North Atlantic Right Whale Consortium website, www.narwc.org, under the *Right Whale News* tab.

To submit ideas, article topics, and comments, contact Editor Jim Hain at jhain@earthlink.net and place “RWN Editorial” in the subject line. To subscribe, please use the “Mail Chimp” system at: <http://eepurl.com/JvmKf>. The link is also available via the *Right Whale News* tab on www.narwc.org.

Citing *Right Whale News*: The requested format for citations from *Right Whale News* is: Right Whale News Volume(number): page(s). Alternatively, a less formal citation may simply use month and year of issue.

An index to *Right Whale News*, subject and author, for the period 2014-2004 is posted at the North Atlantic Right Whale Consortium website, www.narwc.org—under the *Right Whale News* tab. Indexing for the period 2004-1994 is underway.

Support for *Right Whale News* is provided by the Island Foundation and the Massachusetts Environmental Trust.

Jim Hain, Editor of *Right Whale News*, is a member of the Society of Environmental Journalists.