Notes from the Editor

May 22, 2026

Our first issue of 2026 is a joint winter/spring issue. As winter was wrapping up, we just did not have enough articles ready for publication to justify an issue, so we modified Volume 112 a bit. I hope you enjoy the seven excellent articles that make up this joint issue.

The first article is an essay from two researchers at the Ventana Wildlife Society. The essay discusses why a small caliber shortage of non-lead ammunition—especially the .22 long rile (LR) rimfire ammunition—in California is concerning for both hunters and California condors (*Gymnogyps californianus*), which are endangered under both the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA). As many may be aware, the passage of AB711, signed into law in 2013 and fully in effect by 2019, amended section 3004.5 of Fish and Game Code restricting the use of non-lead ammunition when shooting wildlife anywhere in the state; California is the only state to have such a law. The authors explain that condors continue to die from ingesting lead fragments left in carcasses of small animals shot by hunters and ranchers, and they suggest that shortages, high prices, and restrictive purchasing regulations for non-lead ammunition may be discouraging compliance with the law. Their survey and store inventory monitoring showed that non-lead .22 LR ammunition was rarely available in central California stores and became even scarcer after major manufacturers discontinued production. Because .22 LR is one of the most widely used calibers for pest control, the authors warn that continued reliance on lead ammunition threatens condor recovery efforts. They conclude that California should focus on improving access to non-lead rimfire ammunition through manufacturer incentives, subsidies, tax exemptions, and broader market support rather than imposing additional burdens on hunters and ranchers.

The next article, a research note from an ecologist working out of University of California, Berkeley, documents the first known occurrence of the non-native anchor worm parasite (*Lernaea cyprinacea*) on the extinct thicktail chub (*Gila crassicauda*), a once-abundant fish native to the Sacramento–San Joaquin Delta. By examining the final recorded specimen of the species, collected in 1957, the author identified three anchor worm infestations and suggests that parasitism may have contributed to the species' decline alongside habitat alteration and the introduction of non-native fishes. Although the direct effects of the parasite on thicktail chub remain unknown, this note highlights how introduced pathogens can weaken fish populations through reduced body condition, increased susceptibility to predation, and secondary infections. The findings emphasize the importance of considering disease and parasitism, in addition to habitat loss and invasive species, when evaluating the causes of decline in rare and extinct native fishes.

The issue's third article, authored by researchers from the Tejon Ranch Conservancy and Venture Land Trust, is one of the Journal's first monographs. It examines the population ecology of western Joshua trees (*Yucca brevifolia*) in the Antelope Valley of California's western Mojave Desert, where dense, low-statured, clonal stands occur at the edge of the species' range. A reminder that western Joshua tree is a currently a candidate for listing under CESA and has received special protections under the Joshua Tree Conservation Act. Over 13 years of monitoring, the authors found that these Joshua tree populations differ substantially from those elsewhere in the Mojave Desert, exhibiting unusually high stem densities, extensive rhizomatous growth, and dynamic patterns of stem production, regression, and survival. The study suggests that strong mountain-front winds, in addition to fire, may play an important role in

shaping stand structure by damaging stems and altering branching patterns. The findings improve understanding of this distinctive and understudied Joshua tree growth form and provide important baseline ecological information to support future conservation and management efforts for this important and iconic Mojave Desert species.

Next up in the issue is joint effort by Stillwater Science and Morro Bay National Estuary Program researchers focused on evaluating the effort to support steelhead (*Oncorhynchus mykiss*) recovery through managing the invasive Sacramento pikeminnow (*Ptychocheilus grandis*). The research note evaluates the effectiveness of a long-term effort to suppress the invasive pikeminnow in Chorro Creek, a small central California watershed that supports the ESA and CESA-listed steelhead. The authors found that modest annual suppression efforts, including electrofishing, angling, and seining, reduced pikeminnow densities over time and appeared to improve conditions for native steelhead populations. Young-of-year steelhead increased following the initiation of suppression efforts, while larger pikeminnow, which are known predators of juvenile steelhead, declined gradually throughout the study period. Although complete eradication of pikeminnow remains unlikely without additional tools and sustained management, the study demonstrates that relatively low-cost suppression efforts can contribute meaningfully to steelhead recovery and highlights the importance of continued invasive species management in California watersheds.

In the issue's fifth article, researchers from Point Blue Conservation Science and The Marine Mammal Center investigated how commercial Dungeness crab fishing activity overlaps with whale habitat off of central and northern California, where increasing whale entanglements have become a growing conservation and fishery management concern. Using GPS tracking data from volunteer crabbing vessels, the authors applied movement modeling techniques to identify where fishing activity occurred and to predict the environmental and operational factors that influence crabbing behavior. The study found that crabbing effort was concentrated relatively close to ports, typically in intermediate depths and sandy seafloor habitats, with fishing locations shifting seasonally over the course of the crab season. By improving understanding of the spatial footprint of the Dungeness crab fleet, this research provides managers with new tools to better target whale entanglement mitigation efforts while supporting the long-term sustainability of California's economically important crab fishery.

Another research note in the issue, by a Windward Environmental consultant, documents a new longevity record for spotted bass (*Micropterus punctalatus*) based on an 18-year-old fish collected from Whiskeytown Reservoir, just outside of Redding, California. Using otolith analysis, the author determined that the fish substantially exceeded the previously reported maximum age of 11 years for the species. The note suggests that California reservoirs, particularly deep, cold, oligotrophic systems such as Whiskeytown Reservoir, may support unusually long-lived and trophy-sized spotted bass populations. These findings contribute new information on the age and growth characteristics of introduced spotted bass in California waters and indicate that exceptional longevity in the species may be more common in the state than previously recognized.

Lastly, the final article of the issue—a collaboration of seven researchers from Mexico—examines patterns of relative growth and body condition in finescale triggerfish (*Balistes Polylepis*) from the southeastern Gulf of California using fishery-dependent sampling collected over more than two decades. The authors found that the species consistently exhibited negative allometric growth, with distinct ontogenetic shifts occurring near the size at sexual maturity, suggesting that energy allocation changes as individuals transition from growth to reproduction. Although body condition varied among sampling

periods, overall condition remained relatively stable and generally indicated a healthy population. Lower condition values observed during the strong 2015–2016 El Niño event suggest that extreme climatic anomalies may influence physiological condition, though the species appears broadly resilient to typical environmental variability. The study provides important biological information for an often-exploited and data-limited fishery species and highlights the value of incorporating ontogenetic growth transitions into fisheries assessment and management.

I also have two new editors to introduce this issue. Ricka McCall holds a master's degree in Ecology and Systematic Biology from San Francisco State University and has completed PhD coursework in Wildlife Ecology at the University of Wisconsin-Madison, where her research focused on phylogenetic analyses of an African caecilian (*Schistometopum thomense*) and demographic modeling of California spotted owl (*Strix occidentalis occidentalis*), respectively. Having worked for private sector, non-profit, and government agencies, she has over 20 years of experience with special-status species including Alameda whipsnake (*Mastocophis lateralis euryxanthus*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), California red-legged frog (*Rana draytonii*), and California tiger salamander (*Ambystoma californiense*), gained through environmental consulting, research, museum, regulatory permitting, and habitat restoration-based roles. Ricka currently works as a Listing Coordinator with the CDFW's Wildlife Diversity Program where she reviews information about species petitioned to be listed as threatened or endangered under CESA.

Marina Lesse, a new Junior Editor, is a Senior Environmental Scientist (Specialist) for the Lake and Streambed Alteration Program at CDFW. She has a background in marine and environmental science with a focus on robotics and uncrewed systems. Her previous research focuses on climate security, climate and energy education, and autonomous systems law and policy. Marina's expertise includes the use of uncrewed underwater and surface vehicles for ocean research, environmental education, habitat restoration, watershed conservation, and marine biology. She recently earned a master's degree in strategic studies from Norwich University. She has a Bachelor of Science in Marine Science from California State University, Monterey Bay, and an Associate Arts degree in Social and Behavioral Science from Citrus College.

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Happy Spring!

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Editor-in-Chief
California Fish and Wildlife Journal