Introduction to Deer and Elk Workshop Special Issue – Part 1

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This issue of the California Fish and Wildlife Journal is a Special Issue and joint publication with the Western Association of Fish and Wildlife Agencies (WAFWA) to commemorate the 14th Biennial Deer and Elk Workshop (DEW). The Deer and Elk Workshop provides a forum for discussion and dissemination of research results, management strategies, and emerging issues in deer and elk management. The DEW is one of several workshops sanctioned by WAFWA on a biennial basis to provide opportunities for wildlife biologists, managers, researchers, veterinarians, and other wildlife-minded individuals to meet to share advances in our understanding of several culturally, economically, and ecologically significant species in western North America. WAFWA represents 24 U.S. states and Canadian provinces with a mission "to advance collaborative, proactive, science-based fish and wildlife conservation and management across the west" (WAFWA 2022).

The 14th biennial DEW was set to be held on the central coast of California at Asilomar in May 2021, but the novel coronavirus pandemic disrupted these plans and forced the host agency—the California Department of Fish and Wildlife—to pivot to a virtual meeting format. While the virtual format did not offer all the California amenities and field trips attendees likely hoped for (bonfires on beaches, field trips to see California's endemic tule elk, deep-sea fishing excursions, etc.), the meeting was a success: nearly 50 individuals presented their research or agency updates on deer and elk >300 individuals attended, awards were awarded, sponsors provided sponsorship, and attendees received some of the comfiest conference t-shirts around.

On a more serious note, the science and presentations at the 2021 DEW were high-quality, engaging, and thought-provoking. The presentations covered a diversity of topics (Fig. 1), but clustered into a few themes of note, including nutrition, which featured prominently as the theme for the plenary session, as well as comprising 2 sessions in their entirety and part of a third. The goal of the plenary was to communicate scientific advances in the understanding of the integral role of nutrition in deer and elk biology and management. To that end, we brought together a slate of speakers who are renowned for their expertise in deer and elk nutrition. Each speaker brought a unique perspective and covered essential topics in nutritional ecology and management, comprising the following topics: integrating nutritional condition and animal-indicated carrying capacity into deer and elk management, integrating remote sensing indices into deer and elk management, contrasting density-dependent and density-independent nutritional limitations, linking plant communities to animal performance, and models for cross-agency collaboration to improve management of deer and elk across landscapes. We are extremely grateful to each of our plenary speakers for helping link these important nutritional concepts and applications together in a way that provides important foundations for deer and elk management and conservation. Each of the plenary talks is available to watch on the Whova platform where the

conference was hosted, and a link is provided elsewhere in this issue.

Figure 1. Word cloud showing most used words in presentation and poster abstracts submitted for the 14th Biennial Deer and Elk Workshop hosted virtually by the California Department of Fish and Wildlife on 3–4 August 2021.

Other predominant themes of the DEW included movement, genetics, and disease. Each of these themes seemed to reflect broader patterns in our current world, including the focus on conservation of migration corridors for ungulates under Secretarial Order 3362, rapid evolution of technology and tools to push the bounds of science (particularly relative to genetic methods), and disease. Disease was at the forefront of many of our minds, at the DEW, in particular because the threat of Covid-19. At the time of the DEW, the threat that Covid-19 poses to deer had not been elucidated (e.g., Hale et al. 2021, Palmer et al. 2021, Roundy et al. 2022), but other relatively new (treponeme-associated hoof disease; TAHD) and more persistent (chronic wasting disease; CWD) threats captivated audiences. While disease certainly has important roles in wildlife management, we hope that the next DEW is a little less plagued by disease so we can reunite in person in 2023 and more fully enjoy the high-caliber science and comradery of an in-person meeting.

References

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