

March 10-11, 2022

ITEM 199-1004-R0322

Request for Authorization to Confer the Title of Professor Emeritus of Biological Sciences on Dr. John Maron – The University of Montana-Missoula

THAT

Upon the occasion of the retirement of Dr. John Maron from the faculty of The University of Montana, the faculty wishes to express its appreciation for his dedicated and valued service to the University and the State of Montana by recommending that the rank of Professor Emeritus be conferred upon him by the Board of Regents of the Montana University System.

EXPLANATION

Dr. John Maron is internationally recognized as one of the best scientists at the University of Montana. John's research has been cited roughly 20,000 times, and his h-index is 63, meaning he has published 63 papers each cited at least 63 times. This is excellent. Perhaps more important for emeritus status, even after retirement John remains highly active as a scholar. He is a co-PI on an NSF award with a colleague in Florida, and he will continue to publish papers funded by this award. The work tackles the classic ecological paradigm that plants trade off growth and defense. In other words, species in low-resource environments evolve slow growth but higher levels of defense, whereas species in high-resource environments evolve fast growth at the expense of defense. This work will develop a more holistic framework for understanding how the abiotic environment influences patterns of plant defense. This continued productivity of course is very important for the University of Montana and for the Montana University System.

John is continuing to publish via other national and international collaborations as well. He just published a paper (Maron et al. 2021, *Ecological Monographs*) with a top-notch group at the University of New Mexico on climate effects on desert consumers - this is one of the top journals in his discipline. John is also continuing his research with other national and international groups, and will certainly maintain research productivity for years. This ongoing research will continue to bring notice to the University of Montana and will bring opportunities to our undergraduate and graduate students. Clearly, the benefits of providing emeritus status to Dr. Maron far outweigh the costs.

To emphasize the exceptionally high quality of John's scholarship, he has led several major studies that have provided the gold standard for concepts in the field of ecology. One of the most striking of these, and one that exemplifies John's extraordinary talent at designing and executing field experiments, is a paper titled "*Rapid evolution of an invasive plant*" (Maron et al. 2004, *Ecological Monographs*). In it, John and international colleagues examined a key theory – that tradeoffs drive very rapid evolution of plants when they are introduced to a new biogeographical part of the world. John found evidence for rapid evolution, but his detailed measurements in many experimental sites and with many populations found that the classic tradeoffs assumed by most ecologists were not so obvious and that this evolution was far more complex than predicted. This paper has been cited over 750 times and is established as a classic in the literature.

A second example of the exceptional impact of John's scholarship comes from field experiments conducted at Fort Missoula. With Marilyn Marler, he conducted the most thorough tests performed to date of the effects of native biodiversity on exotic invasions. Funded by the NSF, they found that native biodiversity greatly reduced both the invasion success and impact of spotted knapweed, Dalmatian toadflax, and sulfur

cinquefoil (several of Montana's worst weeds) on native plant species (Maron & Marler 2007, *Ecology*; Maron & Marler 2008, *American Naturalist*). Again, these papers have become established as major landmarks in the ecological literature.

There are many other examples of Dr. Maron's impact on the discipline of ecology, especially from his empirical studies, but we will finish by describing an important review article. Maron and Vila (2001, *Oikos*) used the literature to examine a crucial hypothesis about whether or not introduced species succeed: that it depends on whether they escape from, or are controlled by, native consumers. They found that actual patterns were far more nuanced and complex than had been assumed prior to the work. Not only did this scholarship bring a hard dose of reality to the ecological literature, it set off a flurry of research that changed the field in substantial ways.

In summary, John Maron is an ideal candidate for emeritus professor at the University of Montana. His past work is outstanding, globally recognized, and has helped to put UM on the academic map. He is continuing this top-notch research and is unlikely to slow down much, and thus will help keep UM on the academic map. His ongoing research is likely to provide employment and intellectual opportunities for undergraduate and graduate students at UM. Finally, the faculty in Organismal Biology, Ecology and Evolution unanimously and strongly support emeritus status for John Maron, one the most exceptional scientists and scholars ever to serve in the UM professoriate.

ATTACHMENTS

None.