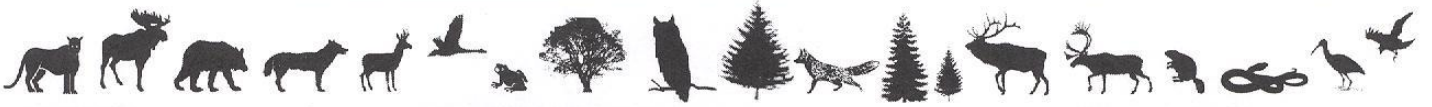

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Editorial

We Need More Research and Conservation Programs on Mesocarnivores

Gilbert PROULX, Editor

Alpha Wildlife Research & Management Ltd., 229 Lilac Terrace, Sherwood Park, Alberta, T8H 1W3, Canada. Email: gproulx@alphawildlife.ca

Mesocarnivore (small- and medium- sized carnivores, usually < 20 kg in weight) conservation programs are scarce, and they are often associated with specific human activities such as fur-trapping, or recovery programs for species at risk. With this special issue of *Canadian Wildlife Biology & Management*, I wanted to highlight the importance of meeting the habitat needs of these carnivores. Mesocarnivores are present in all Canadian Ecoregions, and they affect ecosystem processes and conditions (Paine 1980; Prugh *et al.* 2009). The impact of small- and medium- sized carnivores on wildlife communities is even more pronounced when they acquire the level of apex predator (Roemer *et al.* 2009). With the loss of large carnivores in many regions, the populations of mesocarnivores have expanded in density and distribution, and adapted to habitat changes caused by human activities (Prugh *et al.* 2009; Townsend *et al.* 2020; Triska *et al.* 2020).

Some mesocarnivores have specific habitat requirements, and they can be used as indicator species to identify specific habitat types and wildlife communities. This is the case of American martens (*Martes americana*) and Pacific martens (*M. caurina*) in western Canada where these species are associated with structurally complex forests (Proulx 2009; Proulx and Buckland 2020). In a multi-species habitat

management program, the presence of martens can be used to identify forests that will also be inhabited by birds and mammals seeking structurally complex habitats (Proulx 2005, 2020). Conversely, the absence of mesocarnivores from landscapes may be indicative that the forests have lost some of their characteristics. The use of mesocarnivores as indicator species is appealing to conservationists, land managers and governments because it is a cost- and time-efficient means to assess and manage landscapes.

Mesocarnivores may play a significant role in the intra- and inter- specific transmission of parasites and diseases (Mierzejewski *et al.* 2020) to wildlife and humans, depending on environmental conditions, land use, and habitat composition (O'Mahony 2016; Sándor *et al.* 2017). It is important to monitor populations subjected to habitat changes (Skatter *et al.* 2020), and develop well-defined management strategies to ensure the future of mesocarnivores (Proulx and Aubry 2020; Robitaille *et al.* 2020). As wildlife professionals, we must ensure that the management of mesocarnivores is based on factual information to eliminate groundless (Proulx and Rodtka 2015; Proulx and Parr 2018) and prejudicial (Boesel and Alexander 2020) actions. I hope this special issue of *CWBM*

will incite researchers and managers to focus their attention on mesocarnivore research and conservation.

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