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NEOTROPICAL RAPTORS: PROMOTING RESEARCH AND ADVANCING CONSERVATION IN THE 21ST CENTURY

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The Neotropical region is one of the richest areas of our planet. It extends from southern Florida and southeastern Texas to as far south as the Patagonian steppes, and the grasslands and forests of Tierra del Fuego. Between 3500 and 4000 species of birds inhabit and thrive in this highly diverse ecological region. As expected, raptors are very well represented, with approximately 180-200 species, including vultures, kites, hawks, eagles, falcons, caracaras, osprey, and owls. They occupy a large number of different biomes, habitats, and ecological niches. Some of them are generalists and opportunistic, like the Caracaras (Caracara spp.), while others are highly specialized on one type of prey, like terrestrial snails in the case of the Hook-billed Kite (Chondrohierax uncinatus), or carrion for the New World vultures (Cathartidae). Some species have a very small range, such as some little-known forestdwelling owls restricted to few square kilometers of forest, while others have a broader Pan-American distribution, such as the Turkey Vulture (Cathartes aura) and the American Kestrel (Falco sparverius). Many Neotropical raptors are Critically Endangered, Endangered or Vulnerable, including the Andean Condor (Vultur gryphus), the Chaco Eagle (Buteogallus coronatus), the Gray-backed hawk (Pseudastur occidentalis), Ridgway's Hawk (Buteo ridgwayi) the White-collared Kite (Leptodon forbesi), the Black-andchestnut Eagle (Spizaetus isidori), the Pernambuco Pygmy-Owl (Glaucidium mooreorum), and the Longwhiskered Owlet (Xenoglaux loweryi). These and many other species are threatened by habitat loss, direct persecution, poisoning, diseases, and potential extinction. Time is not on their side, as the threats (and the causes that give origin to them) are relentless and widespread. Thus, there is a real need to gather detailed and current information about Neotropical raptors' ecology, habitat requirements, spatial distribution, and demography, all of which is required for their long-term conservation. Some of these species are restricted to a single country, requiring cooperation of governmental and nongovernmental organizations to prevent their further decline. For other species, such as the Andean Condor, found in most South American countries, international collaboration is vital for the implementation of effective long-term shared conservation efforts.

With so many countries containing so many species of raptors and hence with so many different conservation threats, science becomes an essential component for any evidence-based conservation strategies aimed at maintaining healthy populations of Neotropical birds of prey. However, very little scientific research has been conducted on Neotropical raptors, in comparison to their Holarctic counterparts. Until the early 1980s, we knew very little about the species inhabiting the Neotropics. Most of the information gathered by early ornithologists on Neotropical raptors was focused on general, mainly descriptive, aspects of their life histories. Today, this information is often considered anecdotal and the researchers have not been given enough credit for their work. Sometimes it is easy to forget that these pioneering studies conducted by early ornithologists, in times when academic support was limited or nonexistent, created the foundations for future Neotropical raptor research. More importantly, the work of these early naturalists and ecologists was inspirational and gave rise to a new generation of ornithologists eager to study Neotropical raptors in modern, structured investi-

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gations. The efforts of this new generation slowly started to reveal, for the first time and with rigorous scientific methodology, the ecology, demography, and conservation status of some of the many species of raptors inhabiting the forests of Central America and the Guianas, the Mediterranean areas of central Chile, the llanos of Venezuela, and the Patagonian steppes and Pampas of Argentina.

Nevertheless, by the end of the twentieth century, we were still far from having an adequate baseline understanding of most Neotropical raptors' ecology and natural history. Even in the best cases, our knowledge was patchy and restricted to a few areas and to a few charismatic species. However, in the last two decades we have witnessed a new and significant increase in the number of raptor researchers working in the Neotropical region. There are now many more scientists, and graduate and undergraduate students from Neotropical countries and from all around the world studying birds of prey in many corners of this region. As a result, since the year 2000, significantly more scientific manuscripts on Neotropical raptors have been written and submitted to the Journal of Raptor Research and other journals. Researchers from this region are broadcasting their recent findings and making their work available to other scientists worldwide. The flush of publications on Neotropical raptors also highlights the importance of collaboration, teamwork, and mentoring, as evidenced in the many papers on Neotropical raptors that are coauthored by researchers from different countries and institutions. The scientists presenting their research in this special issue of the Journal of Raptor Research continue this trend and bring recent, cutting edge information on raptor species from the southern United States of America to the insular limits of Argentine Patagonia.

Since its beginning in 1966, the Raptor Research Foundation (RRF) has become the most significant nonprofit scientific society with the primary goal of accumulating and distributing scientific information about birds of prey. Its *Journal of Raptor Research* is the main venue for disseminating scientific information on raptors from all around the world. For many years, RRF has worked tirelessly to translate this international theme into practical actions. In the Neotropical region, RRF has partnered with other organizations, academies, and universities to bring RRF annual conferences to the Neotropics, such as we did for our 2006 and 2013 annual meetings, held

want to acknowledge and express gratitude to Journal of Raptor Research's editor in chief, Dr. Cheryl Dykstra, for her ongoing support for publishing high quality papers from the Neotropical region during her tenure. This special issue is the result of her vision, professionalism, and hard work, which have taken the Journal of Raptor Research to everhigher standards of quality in academic publishing. This issue clearly reflects this. I also want to recognize and thank all the associate editors, reviewers, and translators, for their dedicated, professional, and voluntary work. Special thanks to the diverse and international list of authors (and the institutions that supported them) who submitted manuscripts for this special issue. Last, but not least, sincere and deepest thanks to the Raptor Research Foundation for its generous support of Neotropical raptors research.

Finally, let's dedicate this volume of the Journal of Raptor Research to all those naturalists and researchers who preceded us in the study of Neotropical raptors. Many of them became our mentors and our inspiration, sometimes without even knowing it! Their early work built the foundations for many of us to do the same. I believe the papers presented here by this diverse group of authors hailing from more than 10 countries will not only be of interest to experienced researchers and conservationists but will also inspire and encourage new generations of students and early career raptor researchers to follow in the footsteps of our predecessors, to continue advancing our knowledge of Neotropical birds of prey, and to help conserve them for future generations.

Welcome all to this special issue!