



"Siona and Secoya hunters [in northeastern Ecuador] sharpening spears. Bamboo-tipped spears are a traditional weapon for hunting terrestrial game such as peccaries and tapirs. Since the 1950s, the shotgun has replaced both the spear and blowgun in most hunting. Most of these shotguns are single shot 16 gauge. Factory manufactured shells are expensive, so all hunters reload the plastic shell casings with primers, shot, and gunpowder purchased from river traders." [From W. T. Vickers's paper in *Neotropical Wildlife Use and Conservation*]

outlook for wildlife in the United States was not much better than what is currently being predicted for Latin America. For example, in 1913, the imminent extinction of the pronghorn "antelope," the bighorn sheep, and the elk was predicted, yet today these species are harvested through sport hunting. Can the wildlife management strategy that has made this possible be adapted to Latin America? Shaw reviews the enormous cultural, political, economic, demographic, and ecological differences between the Americas that make wildlife management in Latin America especially challenging. Existing philosophies, techniques, and theories may not be readily transplantable to Latin America without modification for tropical systems, developing economies, different sociopolitical profiles, and different social views of nature.

Several papers discuss theoretical models for determining potential harvest levels. Unfortunately, as with many models, assumptions are unverified or will be found to be species-specific and thus have limited applicability. The most detailed data are those of Franklin and Fritz for guanacos. Franklin and Fritz conclude, on the basis of two decades of research, that sustainable harvest is feasible. The time it took to reach

this conclusion underscores the need for intensive research on other wildlife species. On a more hopeful note, several species of economic importance (caiman, white-winged doves, whistling ducks, capybaras, pacas, iguanas) are amenable to ranching or farming. Unfortunately, these are only a small proportion of the wildlife species utilized, both legally and illegally, from Mexico to Argentina.

Wildlife biology in North America is looked down upon by many ecologists and other biologists, and this is largely the fault of the wildlife biologists themselves, who, with their strongly regional orientation and the close linkage of their work to local game departments, have been long on politics and mundane census studies and short on global theories of management strategy and policy. Undoubtedly, the bright future for wildlife in North America is due to their efforts, but now it is time for them to turn their attention to the question of wildlife management elsewhere in the Americas, where the greatest wildlife diversity resides.

The future of Latin American game and non-game wildlife lies in an international melding of ecology, wildlife biology, conservation, economics, and politics. Can

Neotropical wildlife be preserved and used sustainably? Yes, but only if governments and scientists work together to produce solid data and new theories of management. We know that by protecting economically important game and non-game species, we ensure concomitant management of many associated species of vertebrates, invertebrates, and plants. Major attention must be given to habitat protection. Law enforcement efforts based on reasonable (rather than draconian) wildlife laws need to be instituted throughout Latin America. Educational materials are needed for school children and the general public that illustrate the total value of wildlife and the need for wildlife protection.

There may be more species of wildlife to preserve in the Neotropics than in North America and they may be harder to study, but there is no reason to think that the task is beyond our abilities. This volume is a very positive first step in describing its magnitude and complexity.

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