

THE MEXICAN BIRD RED LIST AND CHANGES NEEDED AT THE GLOBAL LEVEL

Patricia Escalante & Verónica Néquiz

Instituto de Biología, Universidad Nacional Autónoma de México, Apartado Postal 70-153,
04510 México D.F., México. *E-mail:* escalant@servidor.unam.mx

Resumen. – La lista roja de las aves de México y algunos cambios requeridos a nivel global. – La lista oficial de aves en peligro de extinción y amenazadas en México, conocida como lista de la NOM-059, fue actualizada en 2001, por ornitólogos mexicanos reunidos en el Consejo Internacional para la Conservación de las Aves en México (CIPAMEX). Debido a que en esta lista hay tratamientos diferentes para las especies endémicas en comparación con el estatus que otorga BirdLife International, se presenta esta nota. El Paño de Guadalupe (*Oceanodroma macrodactyla*) y el Carpintero imperial (*Campephilus imperialis*) vienen enlistados como probablemente extintos. La Codorniz coluda veracruzana (*Dendrotyx barbatus*), el Tecolote tamaulipeco (*Glaucidium sanchezi*), el Colibrí cola hendida (*Doricha eliza*), las charas pinta (*Cyanocorax dickeyi*), enana (*Cyanolyca nana*), y garganta blanca (*C. mirabilis*), el Chivirín de Nava (*Hylorchilus navae*), la Matraca yucateca (*Campylorhynchus yucatanicus*), y el Zacatonero istmeño (*Aimophila sumichrasti*) son considerados en peligro de extinción. Finalmente, el Loro corona lila (*Amazona finschi*), los colibríes cola blanca (*Eupherusa poliocerca*) y frente verde (*A. viridifrons*), la Chara de Beechey (*C. beecheii*) y la Mascarita de Altamira (*Geothlypis flavovellata*) aparecen como amenazados.

Abstract. – The Mexican bird list of endangered and threatened species known as the NOM-059 was recently updated by the “Consejo Internacional para la Conservación de las Aves en México” (CIPAMEX) and environmental officers. There are some discrepancies between the status given in that list for some endemic birds of Mexico and the global status provided for the same species by BirdLife International. The differences result mainly from new assessments of their habitat current availability and quality, but also from new information, and even new taxonomic treatments, to take into account. The Guadalupe Storm Petrel (*Oceanodroma macrodactyla*) and the Imperial Woodpecker (*Campephilus imperialis*) are listed in NOM-059 as probably extinct. Bearded Wood-Partridges (*Dendrotyx barbatus*), Tamaulipas Pygmy-Owls (*Glaucidium sanchezi*), Mexican Sheartails (*Doricha eliza*), Tufted (*Cyanocorax dickeyi*), Dwarf (*Cyanolyca nana*) and White-throated (*C. nana*) jays, Nava’s (*Hylorchilus navae*) and Yucatan (*Campylorhynchus yucatanicus*) wrens, and Cinnamon-tailed Sparrows (*Aimophila sumichrasti*) are considered as endangered. Finally, Lilac-crowned Parrots (*Amazona finschi*), White-tailed Hummingbirds (*Eupherusa poliocerca*), Green-fronted Hummingbirds (*A. viridifrons*), Beechey’s Jays (*C. beecheii*), and Altamira Yellowthroats (*Geothlypis flavovellata*) appear as threatened. *Accepted 21 January 2004.*

Key words: Conservation, endangered birds, threatened birds, red list, status, Mexico.

INTRODUCTION

The Mexican government has an official list of endangered and threatened bird species, part of a legal instrument called the “Norma Oficial Mexicana 059 (NOM-059-ECOL)”,

updated in 2001. Through coordination by the authors of this paper, the bird list in the NOM-059-ECOL was revised in 2000 by the members of the “Consejo Internacional para la Conservación de las Aves en México” (CIPAMEX), and is continuously updated.

CIPAMEX is currently the Mexican Society of Ornithologists that brings together most professionals and students of birds in this country.

This official list has been an important legal instrument for assessing environmental impacts of various projects at the federal and local levels, especially for government officers (J. Soberón pers. com.). Since the list is public, it could also be used by local communities or non governmental organizations, but the latter generally do not have the capacity to apply this kind of information for their interests.

Although an instrument similar to NOM-059-ECOL was first created in 1991, the bird list has not been as effective as it could be. The first version of the list had several taxonomic errors, but the main problem was the lack of criteria for determining the conservation status to be given to each taxa. There was paucity or lack of information for the great majority of species and subspecies. For the 2001 revision, the government environmental officers invited the scientific community to participate in the revision of the list of threatened and endangered species and the determination of their conservation status. At the same time, officers of the “Instituto Nacional de Ecología” (INE) and the “Comisión Nacional para el Conocimiento y Uso de la Biodiversidad” (CONABIO) collaborated in defining a set of criteria to quantitatively evaluate and score each taxa status. This set of criteria, called the “Method to Evaluate Risks” (MER), is being applied to all life forms, according to available information.

We are happy to contribute in the development of a consensus among the Mexican ornithological community as we recognize the huge responsibility of environmental officers in making informed decisions, and we would like to make available to the general public more information about these species.

This exercise by no means overlooks the actions that BirdLife International (previously

the International Council for Bird Preservation) has contributed over several decades, and continues to do. On the contrary, we use all the information gathered by this organization in their publications. However, the focus of NOM-059-ECOL is to establish the conservation status of birds of Mexico, at the national level. As this kind of information needs to be updated, and since we have found discrepancies or lack of concordance between the status given to some 16 (out of 38) endemic species by CIPAMEX and BirdLife International (2000), we call attention to those taxa that perhaps need to have their conservation status reevaluated. It is obvious that only little new information is available for these taxa, but the main knowledge provided by our collaborators deals with the current habitat availability and quality for each of these species.

EVALUATION OF RISK STATUS

Together with the call to update the NOM-059-ECOL list, the INE and the CONABIO put together a group of experts to discuss the criteria and categories of risks, in order to produce a consensus proposal. Although it was desirable to apply the criteria of the Union for International Conservation of Nature and Natural Resources (IUCN), this was recognized as unattainable and, instead, the experts built up a method to evaluate the risks. The NOM-059-ECOL currently employs the following categories: extinct in the wild (E), endangered (P), threatened (A), and of special concern (Pr). The last category does not have a clear definition and many taxa for which there is little information were given this status. The MER can be applied to any life form, but it was used to define only the endangered and threatened status. The four criteria included in the MER are: distribution, habitat status, intrinsic vulnerability, and human

impact. These criteria were classified or categorized as follows.

Distribution. This criterion refers to the relative distribution of the taxa in Mexico: 1 = widely distributed, over 40% of national territory; 2 = distribution covering >15% but <40%; 3 = restricted, between 5 and 15%; 4 = very restricted or microendemic, restricted to less than 5% of national territory.

Habitat status. Refers to the taxon's natural habitat preferences. The effects of habitat perturbations on the ecological requirements of the species are: 1 = adequate or not limiting; 2 = intermediate or limiting; 3 = hostile or very limiting.

Intrinsic vulnerability. Refers to factors related with life history, phenology, tolerance, resources, genetic variability, recruitment rate, specialization, etc. In birds, we have more often considered data on clutch size, reproductive success (when we have it), behavior and trophic level as clues for this criterion. The scoring is: 1 = low, 2 = medium, 3 = high.

Human impact upon the taxon. Refers to the species population trends as impacted by human activities. Without repeating the judgments derived from the habitat status, the pressures from urbanization, fragmentation, contamination, wildlife trade, land management, introduced species, or other factors, are taken into account: 2 = low; 3 = medium; 4 = high.

When the cumulative score of these four criteria applied to a given species or subspecies falls between 12 and 14 points, or between 10 and 11, the species or subspecies is classified as either endangered or threatened.

The NOM-059-ECOL bird list, as updated in 2001, deals with 352 different taxa, of which 18 are considered as probably

extinct, 66 as endangered, 99 as threatened, and 169 are of special concern. As mentioned above, the list continues to be updated. The entire list is now available on <http://www.ine.gob.mx/ueajei/norma59a.html>. We will highlight here only the species of which conservation status given by NOM-059-ECOL, as updated in 2001, differs from that given by BirdLife International (2000).

RESULTS

Guadalupe Storm Petrel (*Oceanodroma macrodactyla*). This petrel was endemic to Guadalupe Island (Howell & Webb 1995). BirdLife International (2000) considers it as critically endangered. The last record of the species is from 1912; ecological damages to Guadalupe Island have been widely recognized in the literature (Jehl & Everett 1985, Mellink & Palacios 1990, Sweet *et al.* 2001), and all expeditions, after 1912, failed to find the species. In the Mexican list, the Guadalupe Storm Petrel is considered as probably extinct. The difference in the status given in the Mexican list and BirdLife International (2000) results from a different interpretation of the probability that some of petrels may have survived to the present.

Bearded Wood-Partridge (*Dendrortyx barbatus*). This species was originally confined to the cloud forests of the Sierra Madre Oriental (Veracruz, Puebla, San Luis Potosí, and Querétaro), and the Sierra Norte in Oaxaca (Howell & Webb 1995). It is considered as vulnerable by BirdLife International (2000) but classified as endangered in the NOM-059. This discrepancy arises because, although the species has been reported recently, its habitat continues to decline and fragmentation is increasing. In central Veracruz, all the primary forests have disappeared. The situation in the other surrounding states in the Sierra Madre Oriental is also deteriorating, due to defores-

tation near Xilitla (San Luis Potosí) and Tesislán (Puebla), regions which, in the past, supported important populations of this species. In Querétaro, the remaining habitat is located in a narrow area bordering San Luis Potosí. The section near Hidalgo was destroyed in July 1990 (González Salazar pers. com.). In addition, there is no hunting control and, consequently, the species is under strong hunting pressure.

Lilac-crowned Parrot (*Amazona finschi*). This species, endemic to the Pacific lowlands of Mexico, was historically found from southern Sonora and southwestern Chihuahua south to Oaxaca (Howell & Webb 1995). The Lilac-crowned Parrot was not considered by BirdLife International (2000). The Mexican list considers it as threatened, but it might deserve to be listed as endangered. The dry forest, the preferred habitat of this parrot, is a harsh strongly seasonal ecosystem where most trees lose their foliage during 5–8 months every year, and its conservation status is vulnerable because it suffers one of the highest deforestation rates in the country (Massera *et al.* 1996). Recent research by K. Renton and collaborators provided new data on the Lilac-crowned Parrot, showing a small clutch size compared to other *Amazona* parrots, altitudinal migrations by most individuals of the Chamela population during the critical period of the dry season, and inconsistent productivity (0.3 to 1.3 juveniles per pair each year) (Renton 1998). The species continues to suffer heavy pressures from commerce and poaching, being among the most frequently confiscated species at the USA-Mexico border in Texas (Gobbi *et al.* 1996, Wright *et al.* 2001).

Tamaulipas Pygmy-Owl (*Glaucidium sanchezi*). This form received the species status only recently, and it is not considered by BirdLife International (2000) although, in its previous

taxonomic treatment, within *minutissimum*, it was not considered either. In NOM-059, it is classified as endangered. Its narrow distribution makes it endemic of the Sierra Madre Oriental in southern Tamaulipas, southeastern San Luis Potosí, northern Hidalgo, and a small area in northeastern Querétaro (AOU 1998). A recent study by M. A. Martínez-Morales (2001, pers. com.) established that its abundance was in the order of only 0.5 individuals per 100 point counts. This owl is associated with cloud forests, and occupies disturbed habitats if there is still at least 50% of the canopy. Most of the original habitat is reduced to small fragments, and the owl seems sensitive to this condition.

Mexican Sheartail (*Doricha eliza*). This endemic hummingbird has a disjunct distribution, occupying one area in the state of Veracruz, and another on the north coast of the Yucatan Peninsula. It is not currently listed by BirdLife International (2000) and it is possible that each population must deserve a different status. The population in central Veracruz is estimated at 2500 individuals, but the southern population of Veracruz has vanished. Hence, this western population is considered as endangered. The Yucatan population is considered at lower risk but there is currently intense pressure from tourist development and frequent hurricanes (Ortiz *et al.* 2002, pers. com.). NOM-059 considers the Mexican Sheartail as endangered.

White-tailed Hummingbird (*Eupherusa polioerca*). The species is endemic of Sierra Madre del Sur in Guerrero and southern Oaxaca (AOU 1998). BirdLife International (2000) now considers it as vulnerable, but this hummingbird was previously considered as endangered. In NOM-059, it is listed as threatened, but there is a proposal for listing it as endangered. There is only little new information available for this species. Known

as locally abundant, this hummingbird is very much affected by an accelerated trend in deforestation. No part of its distribution range has a protection status (Navarro 2000, N. Chávez-Castañeda pers. com.).

Green-fronted Hummingbird (*Amazilia viridifrons*). This endemic hummingbird is associated with several kinds of dry forests in different elevations through the states of Guerrero, Oaxaca, and Chiapas (up to 1550 m, Howell & Webb 1995). Until now, BirdLife International has not listed this species, but NOM-059 considers it as threatened. The species has a restricted distribution and was only sparsely reported recently (Hunn *et al.* 2000, Forcey 2002, Chávez-Castañeda pers. com.). This hummingbird is possibly affected by habitat fragmentation.

Imperial Woodpecker (*Campephilus imperialis*). Endemic to the Sierra Madre Occidental, this woodpecker was last recorded in 1957, but some indications, e.g., possible recent foraging tracks (1994–1995) and local reports of the species were mentioned by Lammertink *et al.* (1997). In BirdLife International (2000), it is listed as critically endangered but NOM-059 considers it as probably extinct. There is no new information.

Tufted Jay (*Cyanocorax dickeyi*). This jay species is restricted to a small area in the Sierra Madre Occidental in southeastern Sinaloa, northeastern Nayarit, and southwestern Durango. BirdLife International (2000) considered the Tufted Jay as at low threat or nearly threatened, but in NOM-059, it is listed as endangered. Its distribution was reported as restricted to some 8250 km² (Crossin 1967). Its habitat in humid canyons is better preserved. Although not suitable for logging activities, it is used for grazing domesticated animals and drug cultivation. There is no designated protected area within its distribution

range, although some efforts are being undertaken at local level, e.g., Calaveras (2.9 km²) and Mexiquillo (9.7 km²) (Monterrubio pers. com.).

Beechey's Jay (*Cyanocorax beecheyi*). This jay is restricted to the dry lowland forests of western Mexico from southern Sonora to northern Nayarit (AOU 1998). BirdLife International (2000) has not considered this species which, in NOM-059, is listed as threatened, and could be listed as endangered in the coming update. There is no new information regarding the species or its habitat but the threatened status was proposed for it by Raitt & Hardy (1979). Winterstein & Raitt (1983) noted more severe conditions for this species compared to other jays of the same genus. In particular, Beechey's Jays have lower population density, fewer nests per group, and are less sociable. Winterstein & Raitt (1983) reported 10 individuals/km², while Yucatan (*C. yucatanicus*) and San Blas (*C. sanblasianus*) jays had 70 and 170, respectively. Raitt & Hardy (1979) had already reported a high number of nest predators for the species and suggested to consider it as threatened, with the idea that it would be upgraded as endangered in the coming decades. Its habitat has no protection status at all.

Dwarf Jay (*Cyanolyca nana*). The Dwarf Jay is endemic to the cloud forests of the Sierra Madre Oriental, from Querétaro, central-western Veracruz, and eastern Puebla to northern Oaxaca. This species is listed as vulnerable by BirdLife International (2000), but as endangered by NOM-059. This assessment comes mainly from the threats over the cloud forests in the southeastern mountains of Mexico. The Dwarf Jay, in addition to occupying primary cloud forests, is also observed in secondary growth forests, if tree cover is 70% or more. However, these habitats are under severe pressure. The species is presently lim-

ited to only two protected areas (Sierra Gorda and Tehuacán-Cuicatlán) (Martínez-Morales pers. com.).

White-throated Jay (*Cyanolyca mirabilis*). This endemic jay is distributed in the Sierra Madre del Sur in Guerrero and western Oaxaca (AOU 1998). The species is listed as vulnerable by BirdLife International (2000), and as endangered by NOM-059. There is little information about the White-throated Jay in particular, but there have been accelerated losses of its habitat in the past two decades due to logging and deforestation. This jay is poorly represented in the protected area system, because only one area, at Omiltemi, has a protection status (state level).

Nava's Wren (*Hylorchilus navaï*). This wren is endemic to the lowland rainforests of southeastern Veracruz, eastern Oaxaca, and western Chiapas. BirdLife International (2000) considers the species as vulnerable and at low risk or nearly threatened, but NOM-059 considers it as endangered. Since this species is of very local occurrence, although abundant, we consider it as highly fragile. The rainforest in its Veracruz range (Uxpanapa) has been highly deforested, but important parts remain in Oaxaca (Chimalapas) and Chiapas (El Ocote). In this last area, it is already protected. Nava's Wrens are confined to 12 small patches of forest (Gómez de Silva, pers. com.).

Yucatan Wren (*Campylorhynchus yucatanicus*). The Yucatan Wren is an endemic species limited to a narrow coastal strip of the Yucatan Peninsula, where its habitat is in constant change. The Yucatan Wren is not currently considered by BirdLife International (2000), but is listed as endangered in NOM-059. It has been seen recently in coastal scrub and mangrove patches (J. Salgado pers. com.). Tramer (1973) mentions that it can occupy

partially disturbed areas but not overly disturbed habitats. Because of habitat losses and restricted distribution, the species needs some consideration at the global level.

Altamira Yellowthroat (*Geothlypis flavovellata*). This yellowthroat is a marsh specialist endemic to the lowlands of Tamaulipas and northern Veracruz (AOU 1998). The species is listed as vulnerable by BirdLife International (2000), but is considered as threatened, and will be upgraded to endangered in the NOM-059 revision. It will receive this status because of its narrow ecological preferences and its very restricted range limited to reducing and endangered wetland habitats.

Cinnamon-tailed Sparrow (*Aimophila sumichrasti*). This endemic sparrow is restricted to a narrow strip in eastern Oaxaca and western Chiapas. BirdLife International (2000) listed it as at low risk or nearly threatened, but NOM-059 considers it as endangered. Although reported as locally abundant, it is currently being affected by habitat fragmentation due to the construction of the Panamerican highway. Its habitat has no protection status at all (Benitez pers. com.).

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