

**Notes on the Subspecies Groups of the *Check-list of the Birds of Mexico*
by Michael Carmody and Hal Opperman (5th edition, 2009)**

Here will be found explanatory comments and references for the distinctive subspecies Groups shown indented on the Check-list. Some Groups, but far from all, may be candidates for recognition as distinct species by the American Ornithologists' Union in coming years. We have generally broken out Groups only in cases where a species is represented in Mexico by more than one Group. Thus, for example, we do not show Black Brant (*Branta bernicla nigricans*) indented beneath Brant, or the northern Group (*Piranga flava hepatica*) beneath Hepatic Tanager, because these are the only Groups within their species that occur in Mexico. We do make exception to this rule, however, for a small number of cases where such single Groups are regional endemics or endemic to Mexico (e.g., Townsend's Shearwater, Coppery-tailed Trogon, Mexican Antthrush, Cozumel Spindalis...).

While earlier editions of our check-list did include a number of the most familiar subspecies Groups, this new edition represents a considerable expansion in presenting more than 400 Groups broken out from 176 species. Our inspiration was the latest (2008) update of *The Clements Checklist of the Birds of the World*, perhaps the most respected and widely used work of its kind among the worldwide birding community. The decision to include subspecies and Groups in the Clements list can only enhance its standard-setting influence.

The *Clements Checklist* is our most important source, but we have not always followed it to the letter. Many other authorities are referenced in the notes below, and listed in full in the Literature Cited section at the end. Our four most frequently consulted sources are cited in abbreviated form:

AOU = American Ornithologists' Union. 1998. *Check-list of North American Birds*. 7th ed. American Ornithologists' Union, Washington, D.C.

CLE = James F. Clements. 2008. *The Clements Checklist of the Birds of the World*. 6th ed. Cornell University Press, Ithaca, N.Y. (originally published in 2006). We consulted downloadable spreadsheet version 6.3.2 incorporating updates and corrections as of 15 December 2008:
<http://www.birds.cornell.edu/clementschecklist/corrections/Nov08overview>

H&W = Steve N.G. Howell and Sophie Webb. 1995. *A Guide to the Birds of Mexico and Northern Central America*. Oxford University Press, Oxford, New York, and Tokyo.

N&P = Adolfo G. Navarro-Sigüenza and A. Townsend Peterson. 2004. An alternative species taxonomy of the birds of Mexico. *Biota Neotropica* 4(2). <http://www.biotaneotropica.org.br/v4n2/pt/abstract?taxonomic-review+BN03504022004>

These Notes and the Check-List itself may be downloaded as PDF documents at <http://www.legacy-tours.com/>. This project is a work in progress. The science and art of bird classification are in constant flux; there will always be room for improvement. Please send questions, corrections, and suggestions to mexlist@legacy-tours.com. Your input is welcome and will be gratefully acknowledged in future revisions.

Notes prepared by Hal Opperman

TINAMOUS

- 3 – Thicket Tinamou: W Mexican subspecies *occidentalis* is given separate Group status (H&W, N&P)

DUCKS, GEESE, AND SWANS

- 8 – Snow Goose: although genetic studies have revealed that “Blue Goose” is better considered as a color morph of Snow Goose rather than as a distinct species, as once thought, our check-list follows the suggestion of N&P in including both as Groups, under their former specific names
- 11 – Cackling Goose: four subspecies said to reach Mexico are raised to Group status (CLE); see also Mowbray et al. (2002), Mlodinow et al. (2008).
- 12 – Canada Goose: two subspecies said to reach Mexico are raised to Group status (CLE); see also Mowbray et al. (2002).
- 19 – Mallard: Mexican Duck is split off (CLE, others)

NEW WORLD QUAIL

- 63 – Northern Bobwhite: five Groups elevated to potential split status (based on N&P): *virginianus* in E US and NE Mexico; *ridgwayi* in SE Arizona (formerly?) and N Central Sonora; *graysoni* in Central Mexico; *pectoralis* (includes *godmani*) from Veracruz to Tabasco, Oaxaca, and NE Chiapas; and *coyolcos* on Pacific slope from Oaxaca to Guatemala. See also H&W, Brennan (1999).
- 67 – Montezuma Quail: split into two Group-level taxa separated by the Río Balsas drainage (CLE, others): *montezumae* in SW US and N and Central Mexico, *sallei* in SW Mexico (Guerrero and Oaxaca).

SHEARWATERS AND PETRELS

- 90 – Townsend’s Shearwater: of the two Group-level taxa (CLE), the nominate is the only one occurring in Mexico and is endemic, so we show it on the check-list.
- 92 – Audubon’s Shearwater: we follow the lead of CLE, who recognizes West Indian-breeding *Puffinus lherminieri lherminieri* (Audubon’s Shearwater) and Galapagos-breeding *P. subalaris* (Galapagos Shearwater) as distinct species. Both occur off Mexico, on Atlantic and Pacific waters, respectively. However, the American Ornithologists’ Union Committee on Classification and Nomenclature has not recognized this split, so we are constrained to showing the two taxa on our check-list as Groups within Audubon’s Shearwater.

STORM-PETRELS

- 93 – Leach’s Storm-Petrel: taxonomy complicated and controversial. We list the four subspecies recognized by CLE, based on Power and Ainley (1986), which may or may not merit consideration as Groups: a) *leucorhoa* (both light- and dark-rumped), breeding in N Pacific as far south as Farallon Islands, visitor along Pacific coast of Mexico; b) *chapmani* (mostly dark-rumped), nesting off Baja coast on Los Coronados, San Benito Islands; c) *socorroensis* (smaller than other forms on average, mostly dark-rumped), breeding in summer at Guadalupe Island; d) *cheimomnestes* (mostly white-rumped), breeding in winter at Guadalupe Island. See also H&W, Huntington et al. (1996), AOU, N&P.

BOOBIES AND GANNETS

- 103 – Brown Booby: split into Atlantic (*leucogaster*) and Eastern Pacific (*brewsteri*) Groups (CLE)
- 104 – Red-footed Booby: split into Atlantic (*sula*) and Eastern Pacific (*websteri*) Groups (CLE)

PELICANS

- 107 – Brown Pelican: split into three geographic races occurring in Mexico (CLE); see also Wetmore (1945)

CORMORANTS

110 – Double-crested Cormorant: split between Atlantic (*auritus*) and Pacific (*albociliatus*) Groups (CLE)

HERONS, BITTERNS, AND ALLIES

119 – Great Blue Heron: Great White Heron (Caribbean) is split off as a Group of its own (N&P, CLE)

126 – Green Heron: three Groups in Mexico (CLE)

HAWKS, KITES, EAGLES, AND ALLIES

141 – Osprey: check-list recognizes American form *carolinensis* (breeds Baja, NW Mexico; migrant, winter visitor elsewhere) and Caribbean form *ridgwayi* (resident along Quintana Roo coast) as discrete Groups (CLE)

153 – Sharp-shinned Hawk: White-breasted Hawk, resident south of Isthmus of Tehuantepec, given separate Group status (CLE, others)

158 – White Hawk: northern subspecies is recognized as a Group (CLE). It is the only one occurring in Mexico and is a regional endemic, so we show it on the check-list.

159 – Common Black-Hawk: with American Ornithologists' Union having downgraded Mangrove Black-Hawk (Banks et al. 2008), it becomes a Group (CLE)

163 – Roadside Hawk: Cozumel population recognized as a Group (N&P, CLE)

164 – Red-shouldered Hawk: two of the Groups recognized by CLE occur in Mexico and are shown here, *elegans* (resident in Baja) and *alleni* (winters to NE and Central Mexico)

171 – Red-tailed Hawk: split into numerous Groups by CLE. The four shown range southward into Mexico: *borealis*, wintering to Central and E Mexico; *calurus*, resident in Baja and NW Sonora and wintering throughout Mexico; *kriderii*, wintering to Central Mexico; and *fuertesi*, resident in SW US and N Mexico. CLE seems to include in *fuertesi* Group the subspecies *hadropus* (resident in Central Highlands and SW Mexico) and *kemsiesi* (resident from Chiapas to Nicaragua), but leaves unresolved the status of *fumosus* (Tres Mariás) and *socorroensis* (Socorro), which do not appear to be assigned to any of his listed Groups.

CARACARAS AND FALCONS

182 – American Kestrel: our check-list splits off the *tropicalis* Group that occurs from Oaxaca southward (H&W, N&P)

183 – Merlin: the two subspecies shown winter in Mexico and are recognized as Groups by CLE

186 – Peregrine Falcon: the two subspecies shown occur in Mexico and are recognized as Groups by CLE

RAILS, GALLINULES, AND COOTS

190 – Clapper Rail: taxonomy of this species is a mess. H&W assign the Mexican forms to three Groups, *saturatus*, *pallidus*, and *obsoletus*. CLE does not recognize *pallidus* as a Group, and splits H&W's *obsoletus* into four Group-level taxa of which three occur in Baja and NW Mexico. Our check-list follows CLE for the latter set of splits and H&W for the remaining taxa.

191 – King Rail: taxonomy of this species is confused, and its status in Mexico is poorly understood, but the sedentary population in the Valley of Mexico has sometimes been suggested as a separate species (H&W, Taylor 1998, Poole et al. 2005)

CRANES

204 – Sandhill Crane: the three subspecies shown winter in Mexico and are recognized as Groups by CLE

SANDPIPERS

- 222 – Solitary Sandpiper: our check-list recognizes eastern and western breeding Groups (CLE), both of which occur in Mexico
- 225 – Willet: our check-list recognizes eastern and western breeding Groups (CLE), both of which occur in Mexico
- 243 – Dunlin: our check-list recognizes eastern and Pacific breeding Groups (CLE), both of which occur in Mexico
- 247 – Short-billed Dowitcher: of three Groups recognized by CLE, the two shown here occur in Mexico

GULLS, TERNS, AND SKIMMERS

- 264 – California Gull: split recognizes the distinctive northern breeding taxon *albertaensis* as a separate Group (CLE)
- 273 – Least Tern: our check-list recognizes as Groups the three breeding populations, all of which occur in Mexico (CLE). However, visible differences among them are subtle (Johnson et al. 1998), and no strong case has been made so far for raising them to full species status.

AUKS, MURRES, AND PUFFINS

- 290 – Xantus's Murrelet: the two subspecies are recognized as Groups (CLE, others)

PIGEONS AND DOVES

- 299 – Band-tailed Pigeon: our check-list splits off the subspecies from the Cabo San Lucas district (N&P, CLE)

LORIES, PARAKEETS, MACAWS, AND PARROTS

- 319 – Green Parakeet: split into three Groups occurring in Mexico (H&W, N&P). CLE recognizes Socorro Parakeet as a separate Group but lumps the two mainland taxa (*holochlora* of NE and SE Mexico and *brewsteri* of NW Mexico).
- 323 – Military Macaw: we break out the Mexican subspecies as a separate endemic Group. Even though "no consistent visible racial differences exist" between it and the nominate subspecies in South America (Juniper and Parr 1998), nonetheless their ranges are separated by a great distance. The gap between them is occupied by the Great Green Macaw, which has sometimes been treated as conspecific with the Military Macaw. Phylogenetic studies needed.
- 328 – Mexican Parrotlet: subspecies *insularis* resident on Islas Tres Marias split off from mainland form as separate Group (N&P)
- 338 – Yellow-headed Parrot: our check-list splits off the Tres Marias form (CLE).

CUCKOOS, ROADRUNNERS, AND ANIS

- 340 – Squirrel Cuckoo: splits the W Mexican and Middle American forms (N&P, CLE)

TYPICAL OWLS

- 353 – Western Screech-Owl: our check-list recognizes three Groups: *kennicottii*, ranging southward from W Canada and US into Baja and NW Sonora; *suttoni*, from Mexican Plateau north into Big Bend region of Texas (both per CLE); and *vinaceus*, endemic to NW Mexico (per AOU, N&P). See also Cannings and Angell (2001), who emphasize the need for a thorough taxonomic study.
- 354 – Eastern Screech-Owl: McCall's (recognized as a Group by CLE) is the only subspecies occurring in Mexico and is a regional endemic, so we show it on the check-list.
- 356 – Pacific Screech-Owl: endemic subspecies *lambi* (Oaxaca) is split off from *cooperi* (Chiapas to Costa Rica), per N&P; see also Moore and Marshall (1959).

- 359 – Vermiculated Screech-Owl: Guatemalan (recognized as a Group by CLE) is the only form occurring in Mexico and is a regional endemic, so we show it on the check-list.
- 363 – Northern Pygmy-Owl: based on H&W, our check-list recognizes three Groups in Mexico: *gnoma* widespread in mountains north of Isthmus of Tehuantepec, *cobanense* from Chiapas to Honduras, and *hoskinsii* in Cape District of S Baja. N&P and CLE incorrectly include a fourth Group, *californicum*, which does not occur in Mexico.
- 366 – Colima Pygmy-Owl: we split off the *griscomi* subspecies of the Upper Balsas Basin (Morelos and Guerrero) from the *palmarum* Group elsewhere in W Mexico, per N&P
- 372 – Spotted Owl: two Groups in Mexico: *occidentalis* in mountains of N Baja, and *lucida* in mountains of NW and NE Mexico, south to Michoacán and San Luis Potosí (N&P, CLE)
- 373 – Barred Owl: we suggest separate Group status for the subspecies *sartorii*, with disjunct populations in several mountain ranges on both slopes (Durango to Michoacán and Guerrero, and Central Veracruz to N Oaxaca). Distinctive in appearance and vocalizations from other Barred Owl subspecies (nearest in S Central Texas).

GOATSUCKERS

- 392 – Whip-poor-will: two Groups: *vociferus* wintering in E and S Mexico, and *arizonae* breeding or year-round resident in mountains essentially throughout (H&W, N&P, CLE)

SWIFTS

- 396 – Black Swift: our check-list splits North American breeding race (migrant in Mexico) from Mesoamerican breeding race (CLE)
- 402 – Vaux’s Swift: we follow N&P and Bull and Collins (2007), with three Groups: *vauxi* breeds NE Mexico, widespread as migrant, winter visitor; *richmondi* resident from W, S Mexico to Panama; and *gaumeri* resident on Yucatan Peninsula

HUMMINGBIRDS

- 406 – Long-billed Hermit: CLE and many other authorities split this species into two Groups, *longirostris* of SE Mexico on Atlantic slope and *mexicanus* in W Mexico. We have added a third, NW Mexican *griseoventer* (per H&W, N&P). Case for splitting this species is weak, according to Hinkelmann and Schuchmann (1997); molecular data needed.
- 409 – Wedge-tailed Sabrewing: split into Groups north (*curvipennes*) and south (*pampa*) of Isthmus of Tehuantepec (H&W, N&P). However, Hinkelmann and Schuchmann (1997) lump these races along with Long-tailed Sabrewing, noting that the case for splitting appears weak without DNA data.
- 414 – Green Violetear: northern subspecies is recognized as a Group (CLE). It is the only one occurring in Mexico and is a regional endemic, so we show it on the check-list.
- 421 – Canivet’s Emerald: well-recognized split (CLE, others).
- 423 – Broad-billed Hummingbird: split into three Groups: *latirostris* in N and Central Mexico, *lawrencei* of Islas Tres Marias, and *doubledayi* along Pacific coast from Guerrero to W Chiapas (H&W, N&P, CLE)
- 430 – Berylline Hummingbird: two Groups, north and south of Isthmus of Tehuantepec (H&W, N&P)
- 431 – Blue-tailed Hummingbird: we repeat the suggestion of H&W in recognizing the northern subspecies *guatemalae* as a Group. It is the only one occurring in Mexico and is a regional endemic, so we show it on the check-list.
- 433 – Buff-bellied Hummingbird: two Groups, *chalconata* of NE Mexico and *yucatanensis* of Yucatan Peninsula (CLE)
- 434 – Cinnamon Hummingbird: Tres Marias form *graysoni* is split off from mainland Group (N&P, CLE)

- 436 – Green-fronted Hummingbird: three Groups: *viridifrons* in central Guerrero and Oaxaca, *wagneri* in southern Oaxaca, and *villadai* south of Isthmus of Tehuantepec (N&P)
- 441 – Amethyst-throated Hummingbird: three Groups: *amethystinus* widespread north of Isthmus of Tehuantepec, *salvini* south of Isthmus, and *margaritae* in SW Mexico (N&P). Cortés-Rodríguez et al. (2008a) find strong genetic evidence for the validity of *salvini* as a separate species, but not for *margaritae*.
- 444 – Magnificent Hummingbird: northern subspecies is recognized as a Group (CLE). It is the only one occurring in Mexico and is a regional endemic, so we show it on the check-list. N&P split out *viridiceps* from south of Isthmus of Tehuantepec as a separate Group, but the validity of this race has been challenged (Powers 1999).

TROGONS

- 467 – Elegant Trogon: northern races recognized as a Group (N&P). It is the only Group occurring in Mexico and is a regional endemic, so we show it on the check-list.

MOTMOTS

- 475 – Blue-crowned Motmot: separate Groups for *coeruliceps* of NE Mexico and *lessonii* of SE and S Mexico and Central America (N&P, CLE).

NEW WORLD BARBETS AND TOUCANS

- 485 – Emerald Toucanet: recently split into several species but not yet by American Ornithologists' Union: see Puebla-Olivares et al. (2008). We follow H&W, N&P, and CLE, with two Groups in Mexico: *wagleri* in Sierra Madre del Sur (Guerrero–Oaxaca) and *prasinus* from SE and S Mexico to Nicaragua.

WOODPECKERS AND ALLIES

- 489 – Acorn Woodpecker: three Groups: a) Pacific coastal (*bairdi*), reaching N Baja; b) Cape District (*angustifrons*); and c) *formicivorus* everywhere else (N&P, based on Benítez-Díaz 1993).
- 495 – Golden-fronted Woodpecker: usual division is of 12–14 subspecies distributed into three Groups (H&W, CLE). However, our check-list follows Husak and Maxwell (1998), with subspecies distributed into four Groups: *aurifrons* (N, Central, and E Mexico); *dubius* (SE and S Mexico to Honduras); *polygrammus* (SW Mexico, Oaxaca–Chiapas); and *santacruzii* (SE Chiapas to Nicaragua).
- 503 – Hairy Woodpecker: three Groups, following N&P. These authors include the subspecies *icastus* in the Mexican (*jardini*) Group, whereas H&W place it with the northern (*villosus*) Group. The *sanctorum* Group is resident south of the Isthmus of Tehuantepec, from Chiapas to Panama.
- 507 – Golden-olive Woodpecker: two Groups, including the endemic *aeruginosus* of E Mexico (H&W, N&P; see also Winkler et al. 1995).
- 509 – Northern Flicker: split into three Groups (H&W, N&P, CLE). The *mexicanoides* Group resides south of the Isthmus of Tehuantepec, from Chiapas to Nicaragua.

OVENBIRDS, WOODCREEPERS, AND LEAFTOSSERS

- 516 – Rufous-breasted Spinetail: per N&P, our check-list splits off *pacifica* of the Pacific slope from Chiapas to El Salvador as a separate Group.
- 525 – Strong-billed Woodcreeper: two Groups in Mexico (N&P): *emigrans* (includes *sclateri*) from SE San Luis Potosí to Nicaragua, and *omiltemensis* in Sierra Madre del Sur of Guerrero
- 526 – Northern Barred-Woodcreeper: we split off *sheffleri* of the Sierra Madre del Sur as a separate Group, per N&P. See also Marantz (1997).

ANTTHRUSHES

- 540 – Black-faced Antthrush: the Mexican populations are recognized as belonging to a separate Group (Howell 1994, reflected by CLE). This Group is the only one occurring in Mexico and is a regional endemic, so we show it on the check-list.

ANTPITTAS

- 541 – Scaled Antpitta: split into two Groups, north and south of the Isthmus of Tehuantepec, per N&P. They recognize a third Group, *binfordi*, but this recently described subspecies requires corroboration (Krabbe and Schulenberg 2003) so is lumped here into the northern (*ochraceiventris*) Group. See Dickerman (1990).

TYRANT-FLYCATCHERS

- 544 – Greenish Elaenia: our check-list splits off the W Mexican Group *jaliscensis* (CLE)
- 549 – Paltry Tyrannulet: the nominate subspecies is recognized as a Group (CLE). It is the only one occurring in Mexico and is a regional endemic, so we show it on the check-list.
- 561 – Tufted Flycatcher: the nominate subspecies is recognized as a Group (CLE). It is the only one occurring in Mexico and is a regional endemic, so we show it on the check-list.
- 570 – Willow Flycatcher: split into three Groups, all of which occur in Mexico (CLE)
- 588 – Dusky-capped Flycatcher: two Groups for Mexico, per H&W and CLE: subspecies *olivascens* (breeding SW US and Chihuahua to Nayarit, wintering Sonora to Oaxaca); and *lawrencei*, a large group with several subspecies widely distributed elsewhere in Mexico and south to Costa Rica. See also Tweit and Tweit (1992).
- 592 – Brown-crested Flycatcher: two Groups present in Mexico, per CLE; see also Cardiff and Dittmann (2000). Subspecies *magister* breeds from SW US to Pacific slope of Oaxaca; *cooperi* Group breeds on Atlantic slope from S Texas to Costa Rica.

POSITION UNCERTAIN

- 613 – Gray-collared Becard: W Mexican *uropygialis* split off as separate Group (H&W, N&P)
- 614 – Rose-throated Becard: split into western (*albiventris*) Group (SW US to Oaxaca) and *aglaiae* Group elsewhere in Mexico, following N&P; consistent with the most recent revision (Webster 1963)
- 615 – Masked Tityra: split into western (*griseiceps*) and eastern (*personata*) Groups (N&P, based on H&W)

VIREOS

- 623 – White-eyed Vireo: our check-list splits out race *perquisitor* breeding in NE Mexico (N&P)
- 624 – Mangrove Vireo: our check-list adopts Groups proposed by N&P: a) *paluster* on Pacific coast from Sonora to Nayarit; b) *ochraceus* Group (includes *pallens*) on Pacific coast from Oaxaca to Costa Rica; c) *semiflavus* Group (includes *salvini*) on Atlantic slope from Yucatan Peninsula to Nicaragua. AOU and CLE differ in number of Groups (two or three) and assignment of subspecies to Groups.
- 626 – Bell's Vireo: three Groups, all of which reach Mexico (CLE)
- 631 – Plumbeous Vireo: we adopt the splitting off of the subspecies *montanus*, resident south of the Isthmus of Tehuantepec, as advocated by N&P. They also assign to this Group the subspecies *notius* of Belize, which differs markedly in appearance and ecology. It is possible that each of these southern taxa deserves full species status (Curson and Goguen 1998).
- 632 – Cassin's Vireo: we suggest Group status for race *lucanus* resident in mountains of Cape District (S Baja).

- 634 – Hutton’s Vireo: split into Pacific coastal (*huttoni*) and interior (*stephansi*) Groups, following CLE. We also suggest Group status for subspecies *cognatus*, breeding in mountains of S Baja.
- 636 – Warbling Vireo: we adopt the split into eastern- and western-breeding Groups, per CLE and others. We also suggest Group status for subspecies *victoriae*, breeding in mountains of S Baja.
- 647 – Rufous-browed Peppershrike: our check-list splits out the Cozumel subspecies (H&W, N&P, CLE)

CROWS AND JAYS

- 648 – Steller’s Jay: broken into two Groups, following H&W, Madge and Burn (2001), and CLE (a third, coastal Group does not reach Mexico except as a casual vagrant to N Baja). The northern (*diademata*) Group has long, black crests; the southern (*coronata*) Group has generally shorter, blue crests. However, variation in both characteristics is clinal to a certain extent. The two Groups intersect in Central Mexico. See also Greene et al. (1998).
- 652 – Green Jay: the North American (*luxuosus*) and South American (*yncas*) Groups are frequently suggested for elevation to full species status. The North American Group is a regional endemic, as shown on our check-list.
- 661 – Western Scrub-Jay: our division into three Groups follows AOU, Curry et al. (2002), and N&P, rather than CLE; see also Delaney et al. (2008). Two subspecies of the *californica* Group are found in Baja; four subspecies of the *woodhouseii* Group are resident in N Mexico; the endemic *sumichrasti* (two subspecies) ranges through the mountains from Veracruz to Guerrero and Oaxaca.
- 662 – Mexican Jay: our check-list follows McCormack and Brown (2008), based on McCormack et al. (2008), with four Groups: *arizonae* from SE Arizona through the Sierra Madre Occidental; *couchii* from the Chisos Mountains of Texas to the Sierra Madre Oriental; *potosina* endemic to the highlands of NE and Central Mexico; and *ultramarina* endemic to the Transvolcanic Belt. Other authorities typically suggest two or three Groups.
- 663 – Unicolored Jay: split into two Groups, per N&P. Many studies show the isolated Guerrero race to be morphologically and genetically distinct from the two east-slope subspecies, here placed together in the *unicolor* Group. See also Peterson (1992).

SWALLOWS

- 672 – Purple Martin: follows CLE, with two Groups: a) saguaro-nesting *hesperia* of SW Arizona, Sonora, and S Baja; b) everything else. Subspecies distinctions and geographic limits poorly understood.
- 679 – Northern Rough-winged Swallow: split into two Groups (CLE, others): *ridgwayi* resident in SE Mexico, *semipennis* Group present at various seasons throughout the country.
- 681 – Cliff Swallow: two Groups in Mexico, per N&P, CLE: *melanogaster*, breeding in SW US–W Mexico, and *pyrrhonota*, breeding from US–Canada into Baja–NW Mexico. Both Groups winter in S America, widespread as migrants in Mexico.
- 682 – Cave Swallow: our check-list splits off the Texas–NE Mexico *pelodoma* and the Yucatan–Chiapas *citata* as distinct Groups, per CLE (see also Kirchman et al. 2000). Wintering status of both groups is unclear.

CHICKADEES AND TITMICE

- 687 – Oak Titmouse: we split off the race *cineraceus*, resident in mountains of Cape District (S Baja)

PENDULINE TITS AND VERDIN

- 691 – Bushtit: three continental Groups, as listed by CLE. Lead-colored (*plumbeus*) Group only reaches extreme northern Mexico—or not at all, depending on which “transitional” subspecies get assigned to the Black-eared (*melanotis*) Group and which to the Lead-colored. The *minimus* Group is found in N Baja. In addition we have broken out the race *grindae* resident in the mountains of the Cape District (S Baja).

NUTHATCHES

- 693 – White-breasted Nuthatch: per CLE, split into Pacific coastal (*aculeata*) Group, extending down Baja Peninsula; and interior western (*mexicana*) Group, widespread in pine/oak habitats elsewhere in Mexico. Eastern Group does not occur in Mexico. See also Spellman and Klicka (2007).

WRENS

- 697 – Gray-barred Wren: the two disjunct subspecies are here given Group status, per N&P: *nelsoni* from Puebla to Oaxaca, and *megalopterus* farther west on the Mexican Plateau. General consensus is that the two are distinctive.
- 699 – Rufous-naped Wren: we follow N&P, with three Groups: *rufinucha* in E Mexico, *humilis* along Pacific Coast from SW Chiapas northward to Jalisco, and *capistratus* along Pacific Coast from Chiapas southward to Costa Rica. AOU and CLE place subspecies *nigricaudatus* within the *humilis* Group, whereas N&P place it within the *capistratus* Group, as do we. In our arrangement, *nigricaudatus* is the only subspecies of the *capistratus* Group in Mexico.
- 712 – Carolina Wren: per H&W, N&P, and CLE, our check-list splits off the *albinucha* Group (Yucatan Peninsula south to Nicaragua) from *ludovicianus* Group (E Mexico north through E US to SE Canada).
- 715 – Bewick's Wren: two Groups, per CLE: *eremophilus* (SW US to Central Mexico) and *drymoecus* (SW British Columbia to Baja)
- 716 – House Wren: four Groups, per N&P and CLE, following H&W who treat the four as distinct species: *aedon* (resident in N Baja, winters widely south to Isthmus of Tehuantepec), *brunneicollis* (resident in mountains of E and W Mexico, from SE Arizona and Coahuila to Oaxaca), *musculus* (resident from S Mexico to Panama), and *beani* (endemic to Cozumel Island).
- 721 – Sedge Wren: two Groups, per CLE; *stellaris* winters to NE Mexico, *tinnulus* Group is resident from Nayarit and San Luis Potosí to W Chiapas in several disjunct populations, as well as in Central America.
- 722 – Marsh Wren: four Groups, following CLE. Taxonomy and distribution of this complex are in need of serious work.
- 723 – White-bellied Wren: our check-list splits off the distinctive *pacifica* race of SW Mexico from the *leucogastra* Group of NE and SE Mexico to Honduras (CLE).

OLD WORLD WARBLERS AND GNATCATCHERS

- 731 – Blue-gray Gnatcatcher: split into *caerulea* Group (winters to NE Mexico) and *amoenissima* Group (breeds, winters in many parts of Mexico), per CLE. Additionally, we split out the Cozumel race as a Group of its own, per N&P.
- 735 – White-lored Gnatcatcher: our check-list splits off N Yucatan–Cozumel subspecies from nominate Group (N&P)

THRUSHES

- 744 – Russet Nightingale-Thrush: NW Mexico-breeding form *olivascens* split off as a separate Group (H&W, N&P)
- 750 – Swainson's Thrush: traditional split into eastern (*swainsoni*) and western (*ustulatus*) Groups affirmed by N&P, CLE. See also Ruegg and Smith (2002), Milá et al. (2005), Ruegg et al. (2006), and especially Ruegg (2007)
- 751 – Hermit Thrush: three Groups, following CLE; all three reach Mexico in one season or another
- 756 – White-throated Thrush: two Groups, per H&W, N&P — *assimilis*, widely distributed north of Isthmus of Tehuantepec, and *leucauchen*, ranging from SE Oaxaca to Ecuador.
- 757 – Rufous-backed Robin: two Groups, including *graysoni* of Tres Mariás Islands and coastal Nayarit (split widely recognized by H&W, CLE, others)

759 – American Robin: split of San Lucas Robin of Cape District follows N&P, many other authorities. CLE further divides the remaining subspecies between an eastern Group and a western Group, but we have found it impractical to do so. Visible differences between subspecies are clinal, and while birds resident on the Mexican mainland all belong to the western Group, individuals of both Groups move south to Mexico for the winter and are not consistently separable in the present state of our knowledge. See Sallabanks and James (1999).

MOCKINGBIRDS AND THRASHERS

774 – Curve-billed Thrasher: two Groups (N&P, CLE): *curvirostre* in N, NE, and Central Mexico, *palmeri* in NW Mexico

777 – Le Conte’s Thrasher: per N&P and CLE, based on Zink et al. (1997), our check-list splits off *arenicola* of the Vizcaino Desert (Baja)

778 – Blue Mockingbird: Tres Mariás form split off, per N&P

WAGTAILS AND PIPITS

782 – American Pipit: our list shows two Groups that winter to Mexico (CLE)

WOOD-WARBLERS

791 – Orange-crowned Warbler: per CLE, four Groups, all of which occur in Mexico, including restricted-range regional endemic *sordida* from coastal S California and N Baja

792 – Nashville Warbler: eastern (*ruficapilla*) and western (*ridgwayi*) Groups, both wintering in Mexico (CLE)

798 – Tropical Parula: check-list shows the five Group-level subspecies found in Mexico (CLE): *nigrilora* of S Texas and E Mexico, *pulchra* of W Mexico, *inornata* south of the Isthmus of Tehuantepec from Chiapas to Honduras, and two island endemics. Some authors submerge *pulchra* into *nigrilora* (H&W, N&P). For a contrary view of the validity of the geographic subpopulations of this widespread species as potential distinct species, see Lovette and Bermingham (2001).

799 – Yellow Warbler: three Groups accepted by CLE and most other authorities, although recognizing them as full species remains controversial.

804 – Yellow-rumped Warbler: four-group model adopted from CLE. Raising of one Mexican endemic subspecies (*nigrifrons* of Sierra Madre Occidental) and one regional endemic subspecies (*goldmani* of mountains of Chiapas and W Guatemala) to full species status strongly supported by recent studies (Milá et al. 2007)

829 – MacGillivray’s Warbler: following recommendation of N&P, we split off disjunct population breeding in SE Coahuila and S Nuevo León, not yet scientifically described. See Milá et al. (2000).

830 – Common Yellowthroat: three Mexican endemic races split off as Groups, per N&P. Our check-list also reflects division of North American breeders into three Groups, as presented by Dunn and Garrett (1997), Guzy and Ritchison (1999).

837 – Wilson’s Warbler: three Groups, per CLE. Division into two Groups (eastern *pusilla* and western *pileolata*) confirmed by many studies, but further division of the western Group (coastal *chryseola*) is less strongly supported (Kimura et al. 2002, Clegg et al. 2003, Milá et al. 2005).

840 – Red Warbler: two well-recognized Groups (CLE, others)

846 – Rufous-capped Warbler: in addition to the usual Rufous-capped and Chestnut-capped Groups, we follow H&W, N&P, and CLE in splitting out *salvini* of SE Mexico, Belize, N Guatemala

848 – Yellow-breasted Chat: split into eastern (*virens*) and western (*auricollis*) Groups, both of which occur in Mexico (CLE). For wintering ranges, see Milá et al. (2005).

849 – Red-breasted Chat: Tres Mariás race split out as separate Group (N&P)

POSITION UNCERTAIN

- 851 – Bananaquit: we split out *caboti* of Cozumel Island and adjacent Quintana Roo coast from *mexicana* Group widespread in SE Mexico (N&P, CLE). See Seutin et al. (1994), Bellemain et al. (2008).

TANAGERS

- 852 – Common Bush-Tanager: we list the five populations occurring in Mexico given Group status by N&P: a) *postocularis* in high mountains from SE Chiapas into N Central America; b) *wetmorei* in Sierra de Los Tuxtlas, Veracruz; c) *albifrons* in Sierra Madre del Sur of Guerrero and Oaxaca; d) *dwigthi*, south of Isthmus of Tehuantepec from extreme NE Oaxaca through N Chiapas to Atlantic slope of Guatemala; e) *ophthalmicus* in Sierra Madre Oriental from San Luis Potosí to N Oaxaca. See also García-Moreno et al. (2004), Sánchez-González et al. (2007), and Bonaccorso et al. (2008). CLE lumps *wetmorei*, *dwigthi*, and *postocularis* into one Group.
- 853 – Rosy Thrush-Tanager: Mexican race *schistacea* is split off as a Group from other populations in Central and South America (N&P); see Peterson et al. (2004). This is the only Group occurring in Mexico and is a Mexican endemic, so it is shown on the check-list.
- 856 – Red-crowned Ant-Tanager: W Mexican (*affinis*) Group is separated from the *rubicoides* Group occurring in E and S Mexico (H&W, N&P)
- 860 – Summer Tanager: we separate the eastern (nominate) race from the western (*cooperi*) race, per CLE. The latter breeds in SW US and N Central Mexico; both winter in S Mexico.
- 863 – Flame-colored Tanager: our check-list separates off the *bidentata* Group of W Mexico from *sanguinolenta* of E Mexico and Central America (N&P, following H&W). Burns (1998) is not helpful as his samples of this species both come from the *sanguinolenta* Group.
- 868 – Western Spindalis: we follow CLE in breaking out the Cozumel subspecies as a Group. This race is the only one occurring in Mexico and is a Mexican endemic, so it is shown on the check-list. Note that Garrido et al. (1997), followed by AOU, assign the Cozumel population to a Group that includes the Grand Cayman population, and hence would not be a Mexican endemic.

EMBERIZIDS

- 878 – White-collared Seedeater: split into the two traditional Groups (CLE)
- 881 – Blue Seedeater: split into two Groups separated by Isthmus of Tehuantepec, *concolor* in Chiapas and N Central America and *relicta* from Jalisco and Central Mexico to Oaxaca (N&P, following H&W)
- 885 – White-naped Brush-Finch: split into two Groups: *albinucha* in mountains of Atlantic slope (SE San Luis Potosí to N Chiapas) and *gutturialis* in mountains of SE Chiapas and N Central America (N&P, following H&W)
- 888 – Chestnut-capped Brush-Finch: tentatively split into six Groups, in response to recent phylogenetic studies (Navarro-Sigüenza et al. 2008): a) Sierra Madre Oriental from SE San Luis Potosí to Puebla (subspecies *brunneinucha*); b) Sierra de los Tuxtlas in Veracruz (subspecies *apertus*); c) Sierra Norte de Oaxaca (here unofficially labeled “Mixe Brush-Finch,” previously treated as part of subspecies *brunneinucha* but genetically distinct and not yet scientifically described); d) Sierra Madre del Sur in S Oaxaca (subspecies *suttoni*); e) Sierra Madre del Sur in Guerrero (here unofficially labeled “Atoyac Brush-Finch,” previously treated as part of subspecies *suttoni* but genetically distinct and not yet scientifically described); f) mountains of Pacific slope of Chiapas and central Guatemala (subspecies *macrourus*), along with a disjunct but genetically closely related population in Chimalapas district of extreme eastern Oaxaca (subspecies *nigralatera* — see Rowley 1968). See also the standard revision by Parkes (1954). Further studies are surely on the way and can be expected to lead to a new revision.
- 890 – Olive Sparrow: check-list shows split into three Groups per N&P, based on H&W, and assumes the Costa Rica subspecies *superciliosus* also constitutes a Group of its own. AOU lumps the E Mexico and Yucatan forms into one Group, and the W Mexico and Costa Rica forms into another.

- 893 – Prevost’s Ground-Sparrow: only one Group is present in Mexico (CLE). As a regional endemic, it is shown on the list.
- 897 – Spotted Towhee: four Groups, following model proposed by CLE; in addition we propose the subspecies *magnirostris* from the Cape District as a fifth Group (see Grinnell and Swarth 1926). Taxonomy of this complex is a muddle.
- 900 – California Towhee: we split off *albigula* of the Cape District as a distinct Group, per N&P and several other authorities. However, many questions remain open (see Zink 1988).
- 902 – Stripe-headed Sparrow: split into two Groups, north and south of the Isthmus of Tehuantepec (N&P, supported by H&W and some earlier authorities).
- 908 – Botteri’s Sparrow: our check-list splits off *petenica* Group from SE Mexico south to Costa Rica (H&W, N&P). However, recognition of this form as a separate species has been overturned in several studies from 1959 onwards and no new evidence has been advanced in its favor (see Webb and Bock 1996).
- 916 – Brewer’s Sparrow: split follows Rotenberry et al. (1999), CLE.
- 923 – Sage Sparrow: our check-list adheres to the arrangement favored by N&P, with two Groups — coastal *belli* and interior *nevadensis*. CLE shows four Groups, but see Johnson and Marten (1992), Cicero and Johnson (2006): *clementeae* and *cinerea* should be submerged into the *belli* Group, and while S California-breeding *canescens* is also likely a distinct species, there is no good evidence that it winters to Mexico.
- 925 – Savannah Sparrow: check-list shows four Groups, basically adopted from N&P and CLE, but with all of the continental races treated as belonging to one Group (*sandwichensis*), following Zink et al. (2005), Wheelwright and Rising (2008). Note that, for Zink et al., populations breeding from the Central California coast south to NW Sonora (Puerto Peñasco) and the length of the Baja peninsula constitute a single clade, clearly distinct from the continental clade, that likely merits elevation to full species status. This Group includes the Belding’s, Large-billed, and San Benito forms, among others. Zink et al. note that much of the pronounced morphological differentiation among geographic races of Savannah Sparrow appears to result from recent, rapid evolutionary changes, while Wheelwright and Rising conclude that more work needs to be done before revising the species-level taxonomy of the complex.
- 931 – Fox Sparrow: four Groups, in accordance with CLE (reflecting Zink 1994, Zink and Weckstein 2003). Three of the four winter regularly to N Baja, but status of the Red (*iliaca*) Group in Mexico requires clarification (not mentioned by H&W; see also Weckstein et al. 2002, N&P).
- 937 – White-crowned Sparrow: we accept the division into five Groups by CLE, reflecting Weckstein et al. (2001). The three Groups listed reach Mexico in winter (H&W); a fourth, *nuttalli*, breeds in Central California and is thought to be sedentary; the fifth, *pugetensis*, winters south to SW California but status in Mexico appears to be unknown.
- 939 – Dark-eyed Junco: our arrangement concurs with Nolan et al. (2002), with the exception that we elevate *mearnsi* to Group status (following H&W, CLE). Subspecies *cismontanus* (Cassiar Junco) is given Group status by CLE but treated as an intergrade strain by Nolan et al., who note that individuals of this form reach N Baja rarely in winter.
- 940 – Yellow-eyed Junco: we adopt the four Groups of H&W, repeated by N&P, CLE

CARDINALS, SALTATORS, AND ALLIES

- 944 – Grayish Saltator: our check-list splits off the endemic *vigorsii* Group of W Mexico from the *grandis* Group resident in E and S Mexico (H&W, N&P)
- 949 – Northern Cardinal: we separate the endemic *carneus* of coastal W Mexico from the widespread nominate Group (N&P). See also AOU, Halkin and Linville (1999).
- 951 – Yellow Grosbeak: split into two Groups north and south of the Isthmus of Tehuantepec: *chrysopeplus* of W and NW Mexico and *aurantiacus* of Chiapas and Guatemala (CLE, many others)
- 955 – Blue Bunting: check-list splits off the endemic W Mexican subspecies *indigotica* from the *parellina* Group of E and S Mexico and N Central America (CLE, others)

BLACKBIRDS

- 965 – Red-winged Blackbird: CLE splits this species into three Groups, but we have followed Yasukawa and Searcy (1995) and N&P in not recognizing the validity of Group-level status for the California Bicolored form. There is also some question as to whether it reaches N Baja. For an assessment of the current state of knowledge, see the “Bicolored Blackbird” account in Jaramillo and Burke (1999).
- 967 – Eastern Meadowlark: check-list splits off *liliana* of deserts of SW US, N Mexico as a separate Group (N&P, CLE). Barker et al. (2008) provide confirming genetic evidence for raising *liliana* to full species status.
- 979 – Orchard Oriole: split into two Groups: widespread *spurius*, and *fuertesi* of NE Mexico (H&W, N&P, CLE). See also Baker et al. (2003).
- 980 – Hooded Oriole: split into western (*nelsoni*), eastern (*cucullatus*), and Yucatan (*igneus*) Groups (CLE). Most authorities lump the latter two forms.
- 983 – Streak-backed Oriole: several mutually contradictory proposals for recognizing subspecies and Groups have been put forward in recent years (a.o., by H&W, Phillips 1995, Jaramillo and Burke 1999, N&P, CLE). Extensive mitochondrial DNA research (Cortes-Rodríguez et al. 2008b), reflected by our check-list, does not support the existence of multiple species on the mainland but does provide justification for raising the Islas Tres Marias form to full species status.
- 988 – Audubon’s Oriole: separate Group status for *dickeyae* of W Mexico and *graduacauda* of NE Mexico (H&W, N&P, CLE).

EUPHONIOUS, FRINGILLINE, AND CARDUELINE FINCHES AND ALLIES

- 996 – Scrub Euphonia: our check-list recognizes *godmani* Group (W Mexico) and *affinis* Group (E Mexico to Costa Rica), per N&P, CLE, and others.
- 1003 – House Finch: split into three Groups, following N&P: *frontalis* Group of US, NW Chihuahua, Sonora, and Baja; *mexicanus* Group from Chihuahua and Sinaloa south to Oaxaca; and *amplus* of Isla Guadalupe. Phylogenetic analysis is in a rudimentary state (see Hill 1993), but these three Groups offer a reasonable starting hypothesis.
- 1005 – Pine Siskin: split into two Groups north and south of Isthmus of Tehuantepec (H&W, N&P, CLE).
- 1008 – Lesser Goldfinch: check-list reflects division into the two most frequently recognized Groups: *hesperophilus* of W US, Baja, and NW Mexico, and *psaltria* of S Central US and rest of Mexico, south to Venezuela and Peru. Sorting out interface between these two in northern part of range has always been a headache (see Oberholser 1903). Subspecific taxonomy is conflicting and incompletely studied: see Watt and Willoughby (1999). Mexican endemic subspecies that may merit future consideration for Group status include *witti* of Islas Tres Marias (Grant 1964) and *jouyi* of N Yucatan (N&P).

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