

The game of taxonomy.

There are different definitions about the concept of taxonomy, however for our interest in this article let's say that it is the science that tries to identify, delimit, name and classify the species; in other words, it tries to catalog and sort the species. The most basic and important concept in taxonomy is the "species"; as you remember **specie** is the group of individuals that can reproduce with each other to give a fertile offspring.

There are four main methods to establish a **specie**:

1. Taxonomic
2. Phylogenetic
3. Biological studies
4. Expert judgments.

Currently, most of the taxonomic changes about the classification of birds results from phylogenetic studies. These provide an evolutionary perspective, using molecular biology analysis, DNA comparison and protein sequences.

The American Ornithologist's Union Checklist Committee (AOU) (technically the Committee on Classification and Nomenclature—North and Middle America) receives formal proposals based on published research, which they then consider and approve only if the evidence is compelling enough. The most recent edition of the AOU Checklist was published in 1998. In the time since, the committee has issued numerous updates to keep up with the amount of research that'd been released. Since 2002, these supplements have been published annually in the July issue of *The Auk*, the journal of the American Ornithologists' Union. In Costa Rica, two organizations, "Union de Ornítólogos" and "Asociación Ornitológica", keep track on the list of birds that historically have been observed in this country. Both organizations use the criteria of the AOU, which published the first checklist of North American Birds in 1886. The geographic area covered in this list includes North and Central America from the North Pole to the boundary of Panama and Colombia, including the adjacent islands under the jurisdiction of the included nations; the Hawaiian Islands; Clipperton Island; Bermuda; The West Indies, including the Bahama Islands, the Greater Antilles, Leeward and Windward Islands in the Lesser Antilles (ending with Grenada); and Swan, Providencia, and San Andrés Islands in the Gulf of Mexico. In South America the bird list is governed by The South American Classification Committee, a committee of American Ornithological Society (but that is another story!).

This year's taxonomy changes are published in the [Fifty-eighth supplement to the American Ornithological Society's Check-list of North American Birds](#), published 5 July 2017 in the journal *The Auk*.

Here we summarize the changes that involve birds that are included in Costa Rica checklist...

Magnificent Hummingbird (*Eugenes fulgens*)

Magnificent Hummingbird is split into Rivoli's Hummingbird (*Eugenes fulgens*), found from southwestern USA to northern Nicaragua, and Talamanca Hummingbird (*Eugenes spectabilis*), found in Costa Rica and western Panama. Subtle differences between adult males of the two new species include the color of the gorget (yellow-green in Rivoli's; turquoise in Talamanca) and the color of the underparts (blackish in Rivoli's; dark green in Talamanca).



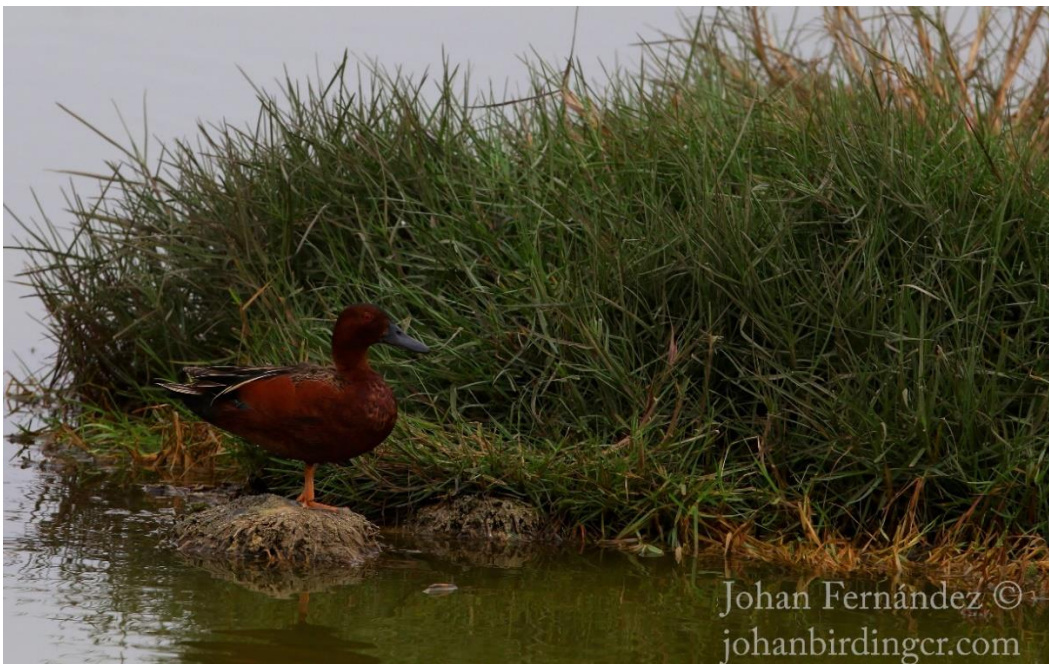
Adult male Talamanca Hummingbird (*Eugenes spectabilis*), November 2015, Parque Nacional Los Quetzales, San José, Costa Rica. Note the turquoise gorget and the green underparts.

In comparison to the Talamanca Hummingbird, the [Handbook of the Birds of the World \(HBW Alive\)](#) mentions a stronger green back, slightly deeper green glittering throat and richer glittering purple crown for Rivoli's. The adult males in northern Central America appear to be somewhat intermediate, showing a dark chest and a green belly. In the past, this group, isolated from the others by the Isthmus of Tehuantepec in the north and the Nicaragua Depression in the south, was described as a third subspecies—*viridiceps*—but for now the AOS decided to leave it with *fulgens*, pending further studies. Vocal differences may be a significant marker for species delineation, so we encourage birders in northern Central America to make recordings of this species.



Adult male Rivoli's Hummingbird (*Eugenes fulgens*), October 2014, Montaña de Izopo, Francisco Morazán, Honduras. Photo © John van Dort / Macaulay Library. The dark chest band is absent in Talamanca Hummingbird.

Split of *Anas* dabbling ducks into four genera



Some of our ducks have new scientific names.

Blue-winged Teal (*Anas discors*) > *Spatula discors*. Cinnamon Teal (*Anas cyanoptera*) > *Spatula cyanoptera*. Northern Shoveler (*Anas clypeata*) > *Spatula clypeata*. American Wigeon (*Anas americana*) > *Mareca Americana*. Others, like Northern Pintail and Green-winged Teal, remain in *Anas*.

Emerald Toucanet split

Emerald Toucanet was split into Northern Emerald-Toucanet (*Aulacorhynchus prasinus*), found in Mexico and throughout Central America, and Southern Emerald-Toucanet (*Aulacorhynchus albivitta*), found in South America. This means that the white-throated form in northern Central America and the blue-throated form in southern Central America continue to form one species, at least according to AOS, now named Northern Emerald-Toucanet. (Note that the HBW and BirdLife International Checklist of the Birds of the World does not follow the AOS and has the blue-throated form from southern Central America split off from the white-throated form.)



For now, these two distinct forms will remain a single species, with a new name: **Northern Emerald-Toucanet (*Aulacorhynchus prasinus*)**. Photos © Brian Sullivan (White-throated form from Belize) and Johan Fernández (Blue-throated form, Costa Rica)

Prevost's Ground-Sparrow split: Prevost's Ground-Sparrow was split into White-faced Ground-Sparrow (*Melospiza biarcuata*), found from southern Mexico to central Honduras, and Cabanis's Ground-Sparrow (*Melospiza cabanisi*), endemic to Costa Rica. Facial patterns in the two newly-declared species are quite distinct, and the presence (Cabanis's) or absence (White-faced) of a breast spot is another distinguishing mark.



Left: White-faced Ground-Sparrow (*Melospiza biarcuata*), May 2017, Guatemala © Ian Davies / Macaulay Library. Right: Cabanis's Ground-Sparrow (*Melospiza cabanisi*), now a Costa Rican endemic © Andrew Spencer / Macaulay Library.

Mangrove Rail is added to the Check-list: Clapper Rail (*Rallus crepitans*) which was split into three species: Clapper Rail; Ridgway's Rail of California, Arizona and Nevada, and Mangrove. Populations of large rails on the Pacific coast of Central America were recently described as Mangrove Rail (*Rallus longirostris*), a species previously known from South America only.



New families for Passerellidae, Icteriidae, Rhodinocichlidae, Zeledoniidae and Mitrospingidae

The New World Sparrows, such as Rufous-collard Sparrow and Striped-headed Sparrow, are now in their own family, Passerellidae (they were formerly lumped with the seedeaters, grassquits, and Brush-finches in the Emberizidae; a family which will included “Old world Buntings” so is not longer in our list).

Yellow-breasted Chat, long considered a warbler in the Parulidae family, now has its own monotypic family, the Icteriidae; this family should not be confused with the Icteridae, i.e. the New World Blackbirds.

Rosy Thrush-Tanager *Rhodinocichla rosea* is removed from Thraupidae (Tanagers and Allies) and is placed in a new monotypic family, Rhodinocichlidae

Wrenthrush (*Zeledonia coronata*) is removed from Parulidae (New World Warblers) and is placed also in a new monotypic family Zeledoniidae; Wrenthrush is regional endemic specie of Costa Rica and Western-Central Panama.

“Mitrospingid Tanagers”, Mitrospingidae include Dusky-faced Tanager (*Mitrospingus cassinii*).

Additionally, Red-breasted Blackbird has changed its Latin name form *Sturnella militaris* to *Leistes militaris*