

Azara's No. 21 "Gavilán pardo oscuro" is not a Short-tailed Hawk *Buteo brachyurus*

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Abstract

Almost half of the 400+ species described in Félix de Azara's "Apuntamientos para la historia natural de los pájaros del Paraguay y Rio de la Plata" were new to science at the time of its publication; however, not all of these have yet been correctly identified. Azara's No. 21 "Gavilán pardo oscuro" has long been misidentified as a dark phase of the Short-tailed Hawk *Buteo brachyurus*. However, the description of plumage, jizz, habitat and measurements are inconsistent with that species and Azara's No. 21 can, in fact, be convincingly identified as a juvenile Swainson's Hawk *Buteo swainsoni*, the earliest Paraguayan report of this species. No scientific names were apparently ever based on Azara No. 21.

Keywords

Buteo swainsoni, Paraguay, Swainson's Hawk

Azara's (1802, 1805a, 1805b) ornithological text "Apuntamientos para la historia natural de los pájaros del Paraguay y Rio de la Plata", was one of the first attempts to document the avifauna of the Southern Cone of South America in a systematic way. Though the author lacked any biological training, his superb descriptive ability and innate eye for systematics allowed him to classify his species descriptions with considerable accuracy. Azara described his species using common names only and European-based taxonomists clamoured to steal the glory by attaching scientific

names to his descriptions. In fact, around half of Azara's 448 species were unknown to science at the time, yet his name does not appear as the author of any of them.

Despite the detail in his descriptions, a significant proportion of Azara's descriptions remain either unidentified or have long been identified with the wrong species. Amongst these is his No. 21 Gavilán pardo obscuro, a description that Sonnini (in Azara 1809) considered to be an undescribed species in his French translation of the work (correctly at the time) and for which neither Kaup (1847) nor Hartlaub (1847) were able to propose an identity. The first author to attempt to associate the description with a known species was Berlepsch (1887), who proposed tentatively that it could be the black phase of Short-tailed Hawk *Buteo brachyurus* and this has been uncritically repeated by subsequent reviewers (Bertoni 1901; Laubmann 1939; Pereyra 1945). However, this identification is erroneous.

Azara's described his No. 21 Gavilán pardo obscuro as follows (my translation, the original text is included in Appendix I):

"I have not seen it. Noséda describes it and in the letter in which he sent me its description, he stated that it belongs to this family. Notwithstanding, it seems to approach the falcons, for its gracility and way of flying and for the slender wings and proportions; to the point where perhaps it would be better next to the Swallow-tailed Kite *Elanus forficatus* and not here. My friend's description is as follows.

It is a hawk that is very different from the first species in this family (Great Black Hawk *Buteogallus urubitinga* and Harris's Hawk *Parabuteo unicinctus*), because brown dominates in its colour: to the point that upon shooting my rifle it seemed entirely brown and in hand its tones were very dull, similar to those of nocturnal birds. It was flying very high around a burn, circling with many others of its species, mixed with some of a paler pattern and it was clear they were different from the shape and wingspan; because this species had a smoother flight, fast and falcon-like and its movements for catching flying insects that escaped the flames were softer and more graceful. Flying with them were also Black-chested Buzzard-Eagles *Geronoaetus melanoleucus*, White-tailed Hawks *Geronoaetus albicaudatus* and the two first swamp hawks (Savanna Hawk *Buteogallus meridionalis*); all doing the same work and looking for cavies, snakes etc. which are scorched into the open; but of all of them, this one was the most different, smaller, with a strange shape, faster flight, a squarer tail and the wings more pointed, being the same as all others of this species. This was the 22 March and I have never seen another.

Length 18 ¼ inches: tail 7: wingspan 43 ¼. From the bill, where the first feathers are streaked and all the neck, is splashed with dark and smoky-white, almost brown, with this colour running along the edges of the feathers without reaching the tips and dominating in almost all that is visible of them, except for behind the ear and under the ear, where the other is predominant; but the top of the head is all dark brown. The breast and sides follow the same design; but at the beginning of the breast, the paler colour is more perceptible, which in parts is almost cinnamon or to put it another way, the opaque white is between cinnamon and brown, which results in a yellowish colour. The leg has the colour of the neck, but with dark blotches,

which form a chain along the middle of the feathers, with the greater underwing coverts the same and the lesser underwing coverts splashed. The belly to the tail is dirty smoky-white, with spots of another colour. The back to the rump and coverts are very dark brown, but the scapular has the edges and some spots of the same yellowish-white of the breast. Some of the median coverts are white and the lesser have the edges white that form an attractive effect; but this pleasant aspect is not complete, because the feathers are old and the most pointed are worn; so that the white edge is missing or lost in most. The flight feathers and tail are dark brown and above, you can just perceive stripes of a stronger colour. Below they are pale, with dark and opaque white stripes.

Flight feathers 24, the third longest. Tail with 12 feathers of even length. Leg 48 lines. Tarsus 32, straw-coloured with hexagonal scales. Mid-toe 18, its claw 7. Bill 11, with a yellow membrane; and the iris is cinnamon-brown."

With the exception of largely dark plumage (present in several species of buteonines that have a dark phase) and small size (which, on the other hand, rules out most Paraguayan species), there is no real evidence supporting the identity of this description as Short-tailed Hawk. The description applies to a moulting juvenile dark phase of Swainson's Hawk *Buteo swainsoni*. Aside from the fact that the dark phase of the Short-tailed Hawk is extremely rare, there are other glaring inconsistencies between the description and that species, not least the attribution of gregarious behaviour (Short-tailed is largely a solitary bird), the occurrence in an open habitat with other open country hawks (Short-tailed is a forest bird), the description of "gracility" (Short-tailed is compact and fairly robust) and the measurements which are a poor match for this species (Table 1) (Ferguson-Lees and Christie 2001).

The Short-tailed Hawk is an uncommon resident in Paraguay (Guyra Paraguay 2005). Swainson's Hawk is a Nearctic passage migrant that winters in the pampean region of Argentina (Fuller et al. 1998), with extreme passage dates through Paraguay of 9 September to 14 March (Hayes et al. 1990; Guyra Paraguay 2005). The latter date is remarkably consistent with that reported by Noséda (22 March) and the report of numerous individuals together is consistent with birds on migration. No-

Table 1. Comparative measurements of No. 21 Gavilán pardo obscuro. Measurements in the Table have been converted into mm from Azara's description (One inch = 25.6 mm; One line = 2.21 mm). Measurements for Swainson's Hawk and Short-tailed Hawk, given in modern literature, are taken from the following sources: Total Length, Tail, Wingspan, (Ferguson-Lees and Christie 2001); Bill (Blake 1979).

	No. 21 Gavilán pardo obscuro	Swainson's Hawk <i>Buteo swainsoni</i>	Short-tailed Hawk <i>Buteo brachyurus</i>
Total length	467.2	430–550	370–440
Tail	179.2	190–230	139–162
Wingspan	1107.2	1170–1370	830–1030
Leg	106.1	NA	NA
Tarsus	70.7	62–76	55–62
Mid-Toe	39.8	NA	NA
Nail	15.5	NA	NA
Bill	24.3	20.5–25.7	17–21

séda was a Jesuit priest in the town of San Ignacio, Misiones department in southern Paraguay and this may be assumed to be the locality of his observations, although this was not specifically stated in the text. Note also the “kite” or “falcon-like” impression attributed to the birds by the authors, terms consistent with those used by modern observers when describing the jizz of Swainson’s Hawk (Ferguson-Lees and Christie 2001; Clark and Schmit 2017; Wheeler 2018).

However, in addition to all of these points (which are consistent with identification as Swainson’s Hawk), the following characteristics may be considered to confirm the identification and to rule out Short-tailed Hawk as a candidate species: 1) two tone ventral colouration (versus uniformly dark in Short-tailed Hawk); 2) pale feather edgings on the upper parts (versus uniformly dark in Short-tailed Hawk); 3) dirty white under-tail covers (versus uniformly dark in Short-tailed Hawk); 4) blotchy pattern of under-wing covers (versus uniformly dark in Short-tailed Hawk); and 5) the pattern ascribed to the head (versus uniformly dark with a white forehead in Short-tailed Hawk). Again in all of these cases, the described appearance is broadly consistent with that of a juvenile dark phase Swainson’s Hawk. This represents the first report of the species in Paraguay, predating the specimen (MAK 56919) collected by Steinbacher (1962) on 13 December 1955 by over 150 years.

No scientific names are based on Azara’s (1802) description of No. 21 *Gavilán pardo obscuro* (Hartlaub 1847).

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Appendix 1

Original text from Azara (1802)

NÜM. XXI

DEL PARDO OBSCURO.

“No lo he visto. Noséda le describió, y en la carta con que me dirigió su descripción, advertía pertenecer á esta familia. Sin embargo parece que se acerca á la de los Alcones, por su ligereza y modo de volar, y por la agudeza de sus alas y proporciones; de modo que tal vez estaría mejor junto á mi *Alcon Colátixera* que no aquí. La descripción de mi amigo es ésta.

Es un Gavilán muy diferente de los dos primeros de esta familia, porque domina lo pardo en sus colores: de modo que á tiro de escopeta parece enteramente pardo, y en la mano sus tintas son muy apagadas, en lo que se asemeja algo á las aves noctur-

nas. Volaba muy alto alrededor de una quemazón, circulando con otros muchos de su especie, mezclados con otros pintados mas claros, que se conocia eran diferentes en la figura y braza; porque los de la especie presente eran de vuelo mas suave, veloz y alconado, y hacían con mas suavidad y destreza las gambetas para coger los insectos volátiles que escapaban de las llamas. También volaban con ellos las Águilas *obscura y blanco*, y la *Coliblanca*, y los dos primeros de *Estero*; todos haciendo la misma diligencia, y espiondo los Apereás, Víboras, &c. que saliesen chamuscados; pero entre todos el presente era muy diverso, menor, de figura mas extraña, de vuelo mas rápido, cola mas igual, y las alas mas puntiagudas, siendo lo mismo todos los de su especie. Esto fué el 22 de marzo, y nunca mas lo he visto.

Longitud 18 $\frac{1}{4}$ pulgadas: cola 7 escasas: braza 43 $\frac{1}{4}$. Desde el pico, donde empiezan las plumas á rayitas, y todo el cuello, es flameado de obscuro y blanco ahumado casi pardo, corriendo este color las bordas de plumas sin llegar á las puntas, y dominando aquel en casi todo lo visible de ellas, excepto tras de la oreja, y baxo de la cabeza, donde predomina el otro; pero encima de la cabeza es todo pardo obscuro. El mismo orden sigue el pecho y costados; pero al principio del pecho es mas perceptible el color claro, que en partes es casi canela, ó por mejor decir, este blanco opaco es entre canela blanca y pardo, que resulta amarillento. La pierna tiene los colores del cuello; pero á manchas oscuras, que siguen encadenadas á lo largo por medio de las plumas, siendo lo mismo las tapadas mayores, y las menores á llamas. El vientre hasta la cola blanco sucio ahumado con pocas manchas de otro color. La espalda hasta la rabadilla y cobijas pardas muy oscuras; pero el escapulario tiene las bordas y algunas manchas de aquel blanco amarillento del pecho. Las cobijas medias son algunas blancas, y las menores tienen las bordas blanqueadas que las agracian mucho; pero esta gracia no es completa, porque las plumas son viejas, y las mas puntiagudas por gastadas; de modo que la borda blanca está borrada ó perdida en los mas. Los remos y cola pardos oscuros, y encima se perciben muy poco las faxas de color mas fuerte. Por debaxo son claros, y á faxas oscuras y blancas opacas.

Remos 24, el tercero mayor. Cola 12 plumas iguales. Pierna 48 líneas. Tarso 32, pajizo y con escamas exágonales. Dedo medio 18, su uña 7. Pico 11, con membrana amarilla; y el iris de canela parda.”