



## Recent bird records from Fogo, Cape Verde Islands

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**Observations récentes de Fogo, Îles du Cap-Vert.** Des données sont présentées concernant 12 espèces d'oiseaux observées à Fogo, Îles du Cap-Vert, parmi lesquelles deux premières mentions pour l'île (Chevalier gambette *Tringa totanus* et Hirondelle de fenêtre *Delichon urbicum*), les premières données de nidification du Martinet du Cap-Vert *Apus alexandri* et les premières observations fiables du Phaéton à bec rouge *Phaethon aethereus* indiquant la nidification probable de celui-ci. Des informations sont également présentées sur d'autres taxons mal connus à Fogo, tels que certaines espèces pélagiques et l'Effraie des clochers *Tyto alba detorta*.

**Summary.** We present data on 12 bird species observed on Fogo, Cape Verde Islands, among them two first records for the island (Common Redshank *Tringa totanus* and Common House Martin *Delichon urbicum*), the first breeding records of Cape Verde Swift *Apus alexandri* and the first reliable observations of Red-billed Tropicbird *Phaethon aethereus* indicating probable breeding. Information on other taxa poorly known on Fogo, such as some pelagic seabirds and Barn Owl *Tyto alba detorta*, is also given.

**F**ogo, one of the Cape Verde Islands, is situated in the leeward group ('Ilhas do Sotavento'), c.724 km from the African continent. With a surface area of 478 km<sup>2</sup>, the highest peak (Pico Novo) reaches 2,829 m (Michell-Thomé 1976). Its landscape is characterised by an active volcano (which last erupted in April 1995) and an impressive caldera rim c.1,000-m high, a rugged coast with vertical cliffs that rise up to 200 m, many small and medium-sized volcanoes, lava plains and a few steep gorges. Large areas are cultivated and/or used as pasture. The remaining original vegetation is mainly confined to the 'Bordeira' and 'Chã das Caldeiras' areas, in cliffs and gorges and in volcanic badlands (see Ribeiro 1954, Mitchell-Thomé 1976, Diniz & Matos 1987, Correia 1996, Day *et al.* 1999, Leyens 2002, Olehowski *et al.* 2008 and Foeken *et al.* 2009 for more information on the geology, geography, climate and vegetation).

Few ornithologists have studied the avifauna of this island. Among them are Leonardo Fea (*in* Salvadori 1899), José G. Correia (*in* Murphy 1924), de Naurois (1969, 1987, 1994), Jaime Vieira dos Santos (*in* Frade 1976), Nørrevang & Hartog (1984), de Bruyn & Koedijk (1990), Hazevoet (1995, 1998, 2003), Barone (1997), Geniez & López-Jurado (1998), Ratcliffe *et al.* (2000), Jens Hering (Hering & Hering 2005, Hering 2008, Hering & Fuchs 2008, 2009) and Jesus *et al.* (2009).

During five ornithological trips to Fogo in 2004–06, we observed several bird species not

reported previously, and some others for which there are only a limited number of observations. Local information on breeding birds was mainly collected by RB. Dates of our visits are as follows: 18–21 October 2004 (JH & H. Hering), 5–10 February 2005 (RB), 18–29 September 2005 (RB), 28–30 December 2005 and 4–5 January 2006 (JH & H. Hering) and 19 October–1 November 2006 (JH & E. Fuchs). Information on the Cape Verde Cane Warbler *Acrocephalus brevipennis* (Hering & Hering 2005, Hering 2008, Hering & Fuchs 2008, 2009) and the diet of the Barn Owl *Tyto alba* (Siverio *et al.* 2008) has been published elsewhere.

### Methods

RB carried out a total of 24 diurnal point counts of 20–60 minutes (both visual and aural, three of them repeated 2–4 times), in different habitats across the island (sea cliffs, lowland xerophytic vegetation, cultivation, inland cliffs, gorges and high-mountain vegetation), largely following the recommendations of Bibby *et al.* (1992). Observations focused on seabirds, herons, raptors, swifts and some passerines, using both binoculars and a telescope. In addition, 14 gorges and inland cliffs, suitable as habitat for diurnal raptors and Barn Owl, were explored, and random walks in the lower, middle and higher parts of the island were performed. These were complemented by five nocturnal listening stations of 20 minutes (one of them repeated four times) in the Mosteiros area, Bangaieira (Chã das Caldeiras) and the main





town, São Filipe, aimed at detecting pelagic seabirds approaching land and Barn Owls. JH focused his attention mainly on the Cape Verde Cane Warbler, conducting listening point counts and line transects to detect the species during its breeding season (see Hering & Hering 2005, Hering 2008, Hering & Fuchs 2008, 2009).

### Results and Discussion

We have selected data on 12 species observed on Fogo, including two new island records of migrants (Common Redshank *Tringa totanus* and Common House Martin *Delichon urbicum*) and observations concerning breeding taxa, namely Cape Verde Swift *Apus alexandri* (first breeding records for the island), Red-billed Tropicbird *Phaethon aethereus* (first reliable observations), several pelagic seabirds and Barn Owl *Tyto alba detorta*.

#### Fea's Petrel *Pterodroma feae*

At least one was seen flying over open sea, more than 500 m off Mosteiros, in the north of the island, by RB on 6 February 2005, at 16.20–16.25 hrs. Two were seen from the same site, at 17.20–17.55 hrs the next day.

This species breeds at several localities on Fogo, mainly in the Chã das Caldeiras area above 1,600 m (Hazevoet 1995, Ratcliffe *et al.* 2000, Jesus *et al.* 2009), but there are few published sightings from adjacent seas. We were informed of a previously unknown colony on Monte Vaca, on the west side of the island, but it was not possible to verify this. Following recent genetic and morphometric studies, the nominate Cape Verdes' population has been proposed as a species different from the birds of Bugio, in the Desertas Islands, Madeira, which are now referred to as *P. deserta* in some literature (Jesus *et al.* 2009).

#### Cape Verde Shearwater *Calonectris edwardsii*

Six were observed flying at sea late in the evening of 18 September 2005 from Porto de Vale dos Cavaleiros, in the west of the island. In the afternoon of 20 September 2005, two were seen flying c.500 m off Mosteiros, with at least three on 21 September. We obtained reliable local information about the breeding of this species on the marine cliffs below Corvo, in the north-east. At Alcatraz, in the south-east, we saw some

possible breeding sites, indicated by droppings at the entrance of several crevices in the marine cliffs, on 24 September 2005.

Despite the fact that Fogo possesses many seemingly suitable breeding sites, there are no breeding records of Cape Verde Shearwater (de Naurois 1994, Hazevoet 1995). This is likely due to the lack of a detailed inspection of its sea cliffs. Bourne (1955) included this species in his list of birds of the islands as it had been 'reported by a reliable inhabitant'.

#### Cape Verde Little Shearwater *Puffinus (assimilis) boydi*

On several occasions on 5–8 February and 20–23 September 2005, we heard birds calling at night while approaching the cliffs behind Mosteiros, where there seems to be a breeding colony. Maximum number of contacts included ten heard between 19.45–22.15 hrs on 21 September, and 13 between 21.30–22.00 hrs on 22 September. At times, two birds were heard simultaneously, and sometimes males and females could be distinguished due to their different vocalisations, as pointed out by James & Robertson (1985) for *Puffinus (assimilis) baroli* and by Robb *et al.* (2008) for the Cape Verdean endemic. Calls were clearly different from those of *P. (a.) baroli* (*cf.* Robb *et al.* 2008). During the late afternoon of 21 September 2005, one or two birds were observed at sea off Mosteiros.

The same locality is mentioned by Hazevoet (1995), who heard several birds there in April 1990. The only known breeding records are from Ilhéu de Cima, Branco, Raso, Santiago and Boavista islands (Hazevoet 1995).

#### Red-billed Tropicbird *Phaethon aethereus*

Three, all apparently adults, were seen approaching the coastal cliffs of Ponta Lenha–Baia da Reconhição, in the south-west (near 'Santuário de Nossa Senhora do Socorro'), in the afternoon of 19 September 2005 by RB. One entered a hole in the basaltic cliffs, but left after four minutes; later the same or another individual visited a different cavity and stayed longer. These observations may indicate breeding at this locality.

To date, Red-billed Tropicbird had not been definitely reported on Fogo, although it had occasionally been observed close to the coast





(T. Leyens pers. comm.) and Bourne (1955) mentioned it for the island based on information by a 'reliable inhabitant'. Breeding has been confirmed on Sal, Boavista, Santiago and Brava, and on Raso and Rombos islets (Hazevoet 1995, 1998), and it probably breeds on Santo Antão as well (Palacios & Barone 2001, Hazevoet 2003). It has been observed recently on Ilhéu dos Pássaros, São Vicente (Hazevoet 2010).

#### **Cattle Egret** *Bubulcus ibis*

We found a roost of this species in a tree at Mosteiros. On 5 February 2005 there were c.125 birds, with 152 there the next day between 17.50–18.55 hrs. In September 2005 there were no Cattle Egrets at all on the island, and in December 2005 and October 2006 only small numbers were recorded, the maximum being 12, south of Mosteiros, on 19 October.

This egret is present in the Cape Verdes mainly in December–April (Hazevoet 1995), with some breeding records from Santiago in the 1960s (Bannerman & Bannerman 1968, de Naurois 1969). Our roost seems to be one of the largest in the archipelago, although 540 birds were counted near the sewage farm of São Vicente on 9–10 March 1996 (Hazevoet 1997). A roost of 1,344 birds was found on Santiago in March 2008 and a breeding colony containing c.60 nests occurred on Boavista in 2004 (Hazevoet 2010).

#### **Grey Heron** *Ardea cinerea*

One flew above the coastal cliffs of Fajãzinha, north-west of Mosteiros, on 7 February 2005, an immature was seen above Mosteiros on 20 September 2005, and another bird along the shore at Mosteiros, on 24 and 29 October 2006.

Hazevoet (1995) mentioned the existence of <10 records from Fogo, Santo Antão and Sal, but there has been an increase in observations on the last two islands during the past decade and even some breeding records on Santo Antão (Hazevoet 1997, Barone & Delgado 1999, Palacios & Barone 2001, Hazevoet 2003). Fogo does not offer suitable habitat for this heron, which prefers coastal plains and lagoons.

#### **Sanderling** *Calidris alba*

Two were observed on a dark sandy beach close to Porto de Vale dos Cavaleiros on 18 September

#### **Legend to figures on opposite page**

**Figure 1.** Satellite image of Fogo Island, Cape Verde Islands, with the main localities cited in the text (modified after a NASA photograph).

Image satellite de l'île de Fogo, Îles du Cap-Vert, avec les principales localités citées dans le texte (modifiée d'après une photo de la NASA).

**Figure 2.** Fajãzinha, in the north of Fogo; one of the best places for waders on the island (R. Barone)

Fajãzinha, dans le nord de Fogo ; un des meilleurs endroits de l'île pour les limicoles (R. Barone)

**Figure 3.** Small canyon between Fajãzinha and Sambango; within its interior two nests of Cape Verde Swift *Apus alexandri* were discovered (R. Barone)

Petit canyon entre Fajãzinha et Sambango, où deux nids du Martinet du Cap-Vert *Apus alexandri* ont été découverts (R. Barone)

**Figure 4.** Mosteiros: from the coast several pelagic seabirds were seen and in the cliffs behind the town Cape Verde Little Shearwater *Puffinus (assimilis) boydi* and Barn Owl *Tyto alba detorta* were heard (J. Hering)

Mosteiros : plusieurs espèces d'oiseaux pélagiques y ont été vus à partir de la côte, tandis que le Puffin semblable du Cap-Vert *Puffinus (assimilis) boydi* et l'Effraie des clochers *Tyto alba detorta* ont été entendus dans les falaises derrière la ville (J. Hering)

**Figure 5.** Pai António is one of the main tropical agriculture areas in the Cape Verde Islands. Barn Owl *Tyto alba detorta* was found at this site, which is one of the most important for Cape Verde Cane Warbler *Acrocephalus brevipennis* in the archipelago (J. Hering)

Pai António est une des zones principales d'agriculture tropicale dans les Îles du Cap-Vert. L'Effraie des clochers *Tyto alba detorta* a été trouvée sur ce site, qui est un des plus importants de l'archipel pour la Rousserolle du Cap-Vert *Acrocephalus brevipennis* (J. Hering)

**Figure 6.** Partial view of the caldera rim of Chã das Caldeiras, situated in the centre of the island, with two villages, Portela and Bangaeira, at its base. This is one of the most important breeding sites of Fea's Petrel *Pterodroma feae* (J. Hering)

Vue partielle du bord de la caldera de Chã das Caldeiras, située au centre de l'île, avec deux villages, Portela et Bangaeira, à son pied. Ceci est un des sites de nidification les plus importants du Pétrel gongon *Pterodroma feae* (J. Hering)

**Figure 7.** Coastal cliffs close to Santuário de Nossa Senhora do Socorro, in the south-west, where Red-billed Tropicbird *Phaethon aethereus* was observed (R. Barone)  
Falaises près de Santuário de Nossa Senhora do Socorro, dans le sud-ouest, où le Phaéton à bec rouge *Phaethon aethereus* a été observé (R. Barone)









2005. On 25 September, two, possibly the same birds, were on a similar beach between Porto de Vale dos Cavaleiros and São Filipe. Four were on Ponta da Salina on 30 December 2005 with a maximum of three on Porto de Vale dos Cavaleiros the same day.

This wader is more common on the eastern islands of Sal, Boavista and Maio (Hazevoet 1995, Barone & Delgado 1999, Barone *et al.* 2001), which possess extensive flat coastal habitats and lagoons, although it occurs locally throughout the archipelago. Our records suggest that Sanderling is probably a regular migrant visitor in small numbers on Fogo.

#### **Common Redshank** *Tringa totanus*

An immature was observed at the shore of Fajázinha on 21 September 2005.

This is the first record for Fogo. There are previous observations from São Vicente, Sal, Boavista, Maio and Santiago (Hazevoet 1995, Barone *et al.* 2001, Hazevoet 2003).

#### **Common Sandpiper** *Actitis hypoleucos*

We have several records from different months, all of them along the northern shore. One east of Mosteiros and three at Fajázinha on 6–7 February and 21 September 2005; three at Mosteiros on 29 December 2005, and one there next day; finally, two at Mosteiros on 24 October 2006, with three there five days later.

There are few published records for Fogo (Hazevoet 1995, Barone 1997). Our observations suggest that it is a regular migrant visitor to this island, as well as to the rest of the archipelago (Hazevoet 1995).

#### **Cape Verde Barn Owl** *Tyto alba detorta*

One was calling above Mosteiros at 23.36 hrs on 6 February 2005. The next day, we discovered two cavities used by the species on the Sambango volcano, in the north. The first, which contained bones of House Mouse *Mus musculus* and some insect remains, was old, but the second (situated at 20 m), where we collected *c.*20 pellets, was still in use. On 9 February we found five pellets at Ribeira Gomes, near Mira-Mira, on the west side of the island, at *c.*700 m (see Siverio *et al.* 2008 for analysis of the pellets). Other records include: a bird calling at night above Mosteiros, at the same

place as in February, on 20 September 2005; a new pellet, containing many insect remains, found below the roost on Sambango on 21 September; one soaring in a cultivated area between Cova Lima and Cutelo Alto, in the north of the island, on 20 October 2006; one perched in daylight in a mango tree *Mangifera indica* at the outskirts of Pai António, in the north, and another on the roofs of the southern part of Mosteiros on 28 October. The diurnal search for the species in several gorges, small canyons and inland cliffs in some other northern (between Mosteiros and Fajázinha), central (Chã das Caldeiras area) and western (São Filipe–São Lourenço) areas of the island was unsuccessful.

These data suggest that Barn Owl is a locally common species on Fogo, as also indicated by information obtained from local people. The only previous records were published by Hazevoet (1995), who saw it several times in June 1989 and April 1990, indicating its probable breeding on this island. Previously Bourne (1955) mentioned that the species was ‘reported by a reliable inhabitant’. Our observations, especially the finding of fresh pellets and birds calling at night with territorial behaviour, are proof of its establishment on Fogo. To date, breeding of the Barn Owl has been confirmed on Santo Antão, Santa Luzia, Branco, Boavista, Maio, Santiago, Ilhéu Grande (Rombos) and Brava, but the species is also present on São Vicente, Raso and São Nicolau (Siverio *et al.* 2007). Furthermore, there is fossil evidence for its presence on Sal (Boessneck & Kinzelbach 1993).

#### **Cape Verde Swift** *Apus alexandri*

This endemic was observed in many localities, mainly over coastal and inland cliffs and steep gorges. It exhibited some nocturnal activity, as we heard one or two birds at night above Mosteiros on 6 February 2005, a behaviour also recorded in similar species like the Plain Swift *Apus unicolor* (Rodríguez 1988). The largest groups consisted of 20–21 birds at the cliffs near Porto de Vale dos Cavaleiros on 18 September 2005 and more than 100 at Chã das Caldeiras on 4 January 2006. However, the most interesting records concern the discovery of several nests. On 7 February 2005 three were seen approaching the cliffs west of Fajázinha, one of which tried to enter a small hole, and a nest (probably in use, as it had droppings at the entrance) was discovered in the same area.







The same day, two other nests were found in a small canyon situated in the interior, at 60 m, between Fajãzinha and Sambango. One of them, at c.5 m height, was occupied, with another, at 3.5 m, nearby. Bones of Cape Verde Swift were found in Barn Owl pellets collected at Sambango in February 2005 (Siverio *et al.* 2008).

These are the first breeding records of Cape Verde Swift on Fogo. Previously, there were nesting data only for Brava and São Nicolau, but its breeding was considered likely on Santiago, Fogo and Santo Antão as well (Hazevoet 1995). Listed as breeding on all of the islands in the archipelago by de Naurois (1994).

#### **Common House Martin** *Delichon urbicum*

One was observed near Bangaieira, in the Chã das Caldeiras area, on 5 January 2006 by JH.

Hazevoet (1995) mentioned that this species had not been reported from Fogo.

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