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## First record of the skink *Chalcides armitagei* BOULENGER, 1922 in coastal areas of Guinea Bissau and Senegal

Twenty-four species are currently recognised in the genus *Chalcides* (Squamata: Scincidae), but only six species are known from Sub-Saharan Africa: *Chalcides ocellatus* (FORSKÅL, 1775), *C. ragazzii* PASTEUR, 1981, *C. bottegi* BOULENGER 1898, *C. thierryi* TORNIER, 1901, *C. pulchellus* MOCQUARD, 1906 and *C. armitagei* BOULENGER, 1922 (PASTEUR 1981; CAPUTO et al. 1995; GREENBAUM 2005; GREENBAUM et al. 2006). *Chalcides pulchellus* and *C. thierryi* are distributed in the Sudan and Guinean savannas of West Africa, from Guinea to Mali and from Ghana to Nigeria, respectively. *Chalcides ocellatus* is widely distributed in Northern and Eastern Africa with the occurrence of isolated populations in the Sahelian Niger River flood plain. The range areas of *Chalcides ragazzii* and *C. bottegi* are limited to the horn of Africa.

The Armitage's Skink *Chalcides armitagei* BOULENGER, 1922, is considered as the rarest of the six species of Sub-Saharan Africa (HÅKANSSON 1981; GREENBAUM 2005). Only four specimens, all from The Gambia, have been reported since the description of the species, despite reasonably comprehensive collecting in The Gambia (ÅNDRERSSON 1937; MILES et al.

1978; HÅKANSSON 1981; GRUSCHWITZ et al. 1991; PAUWELS & MEIRTE 1996; BARNETT et al. 2001), Senegal (GRANDISON 1956; CONDAMIN & VILLIERS 1962; CISSE & KARNS 1978; BÖHME 1978; JOGER & LAMBERT 2002) and Guinea Bissau (MANAÇAS 1955). Of the four known specimens, three are preserved in the British Museum (BMNH 1927.2.2.64-66). One of these is from Cape St. Mary (13°29'N, 16°40'W) on the Atlantic coast near the capital city of Banjul, while the two other specimens are simply labelled "Gambia" (HÅKANSSON 1981). The fourth known specimen of *C. armitagei* (stored at Makasutu Wildlife Trust, Serrekunda, Gambia; collection number: MWTR 003) is also from the coast of The Gambia, north of Kartung village (13°06'N, 16°45'W) (GREENBAUM 2005).

Here we report the occurrence of *Chalcides armitagei* at the village of Boukot Ouolof (12°25'N, 16°45'W), on the coast of Casamance in Senegal, where we obtained thirteen specimens from villagers, and at the mouth of the river Essoukoudiak bolon (12°21'N, 16°40'W), 3 km W of Sucujaque in Guinea Bissau, where we collected two specimens of this species on July 12, 2006. The specimens are preserved at the Institut de Recherche pour le Développement (IRD), Dakar. The main measurements and meristic data of Senegalese and Bissau-Guinean specimens are indicated in Table 1. They present the following characters that distinguish *C. armitagei* from all other Sub-Saharan species of *Chalcides* (GREENBAUM et al. 2006): limbs tridactyl, postnasal usually absent (except for one specimen on both sides of the head and for another specimen on one side only), three supraciliaries, five supralabials (six on one side of the head for one specimen), four infralabials, 91-97 scales from mental to anus. Among species of *Chalcides* from other parts of the world, five species are tridactyl, all belonging to the *C. chalcides* group and distributed in Mediterranean countries (PASTEUR 1981; CAPUTO 1993; CAPUTO et al. 1995): *C. chalcides* (LINNAEUS, 1758), *C. mertensi* KLAUSEWITZ, 1954, *C. pseudostriatatus* CAPUTO, 1993, *C. minutus* CAPUTO, 1993 and *C. striatus* (CUVIER, 1829). They differ from *C. armitagei* by a series of characters, including the presence

Table 1: Selected measurements (mm) and meristic data of *Chalcides armitagei* BOULENGER, 1922 specimens from Sucujaque (Guinea Bissau) and Boukot Ouolof (Senegal) deposited at the Institut de Recherche pour le Développement (IRD), Dakar. (r) - regenerated; +? - mutilated.

IRD Collection number	Locality	Snout-vent length (SVL)	Maximum width (W)	Tail length (TL)	Ratio SVL/W	Ratio SVL/TL	Number of Scale rows at midbody	Number of Ventrals	Number of Postnasals left/right
TR-1731	Sucujaque	100	9	5+?	11.1	-	22	91	0/0
TR-1732	Sucujaque	75	7	55+?	10.7	-	22	92	1/0
TR-1735	BoukotOuolof	126	15	55(r)	8.4	-	22	93	0/0
TR-1738	BoukotOuolof	85	10	72	8.5	1.18	23	93	0/0
TR-1739	BoukotOuolof	85	9	77	9.4	1.10	22	93	0/0
TR-1740	BoukotOuolof	82	9	74	9.1	1.11	22	94	0/0
TR-1741	BoukotOuolof	84	10	73	8.4	1.15	22	94	1/1
TR-1742	BoukotOuolof	105	11	45(r)	9.5	-	22	93	0/0
TR-1743	BoukotOuolof	106	9	19+?	11.8	-	22	94	0/0
TR-1744	BoukotOuolof	118	11	37(r)	10.7	-	22	94	0/0
TR-1745	BoukotOuolof	69	6	34(r)	11.5	-	22	92	0/0
TR-1746	BoukotOuolof	96	10	82	9.6	1.17	22	92	0/0
TR-1747	BoukotOuolof	121	12	60+?	10.1	-	22	97	0/0
TR-1748	BoukotOuolof	91	9	9+?	10.1	-	22	94	0/0
TR-1749	BoukotOuolof	94	9	12+?	10.4	-	22	91	0/0



Fig. 1: *Chalcides armitagei* BOULENGER, 1922 from the vicinity of Sucujaque, Guinea Bissau.



Fig. 2: Habitat of *Chalcides armitagei* BOULENGER, 1922 near Sucujaque, Guinea Bissau, at the beginning of the rainy season in July 2006.

of a postnasal, four supraciliaries, a more elongated body and a higher number of scales from mental to anus (PASTEUR 1981; CAPUTO 1993; CAPUTO et al. 1995; SCHLEICH et al. 1996).

The thirteen specimens from Senegal were collected either on the surface or under the leaf litter in palm tree plantations nearby the houses of the village. The two specimens from Guinea Bissau were collected on the edge of rice fields (Figs. 1 and 2). In each station the soil was sandy. No specimen was observed on the beaches, but all were collected less than two kilometers from the coastline. We interviewed villagers about this species. *Chalcides armitagei* is well known from the villagers and there is no doubt that it is very abundant in the area. By contrast, we were unable to find any specimen 20-30 km inland in the Oussouye area.

Our observations in Senegal and Guinea Bissau, the place of origin of the Gambian specimens, and the failure of previous studies to find this species in Senegal and Guinea Bissau, suggest that *C. armitagei* is a psammophile species whose distribution is limited to the coast of this region of West Africa. A strictly coastal distribution is unique in the genus *Chalcides* for Sub-Saharan species, but is known for two Mediterranean species: *Chalcides parallelus* (DOUMERGUE, 1901) and *C. mauritanicus* (DUMÉRIEL & BIBRON, 1839), two endemics of NW Algeria and NE Morocco, from Oran to Melilla, which are distributed in coastal sands and plantations along the Mediterranean Sea (BONS & GENIEZ 1996; SCHLEICH et al. 1996).

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