Journal of Threatened Taxa

Building evidence for conservation globally

www.threatenedtaxa.org

ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

Note

First photographic record of the Dhole *Cuon alpinus* (Mammalia: Carnivora: Canidae) from the Sirumalai Hills in Tamil Nadu, India

B.M. Krishnakumar & M. Eric Ramanujam

26 July 2020 | Vol. 12 | No. 10 | Pages: 16373–16376
DOI: 10.11609/jott.5959.12.10.16373-16376

Journal of Threatened Taxa | www.threatenedtaxa.org | 26 July 2020 | 12(10): 16373–16376
ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)
DOI: https://doi.org/10.11609/jott.5959.12.10.16373-16376
#5959 | Received 07 April 2020 | Final received 06 June 2020 | Finally accepted 30 June 2020
PLATINUM OPEN ACCESS

NOTE

First photographic record of the Dhole *Cuon alpinus* (Mammalia: Carnivora: Canidae) from the Sirumalai Hills in Tamil Nadu, India

B.M. Krishnakumar [1] & **M. Eric Ramanujam** [2]

[1] PG and Research Department of Zoology and Wildlife Biology, A.V.C. College (Autonomous), Mannampandal, Mayiladuthurai, Tamil Nadu 609305, India.
[2] Principal Investigator (Faunistics), Pitchandikulam Bioresource Centre / Pitchandikulam Forest Consultants, Auroville, Tamil Nadu 605101, India.
[1] Krishnakumarnympha@gmail.com (corresponding author), [2] ericramanujamowl@yahoo.com

The Asiatic Wild Dog or Dhole has a wide global range covering central, southern and southeastern Asia (Kamler et al. 2015). It has been recorded over most of the Indian subcontinent except for the deserts of western India and Eastern Ghats of Tamil Nadu. Though it has been observed in the Western Ghats of Karnataka (Johnsingh 1983; Karanth & Sunquist 1995; Kumara et al. 2012), Kerala (Nair et al. 1985; Rice 1986; Jayson & Ramachandran 1996; Jayson 1998; Vishnu 2012; Narasimen et al. 2013; Shahid & Jamal 2016;), Tamil Nadu (Johnsingh 2001; Kumaraguru et al. 2011; Naresh 2012; Ramesh et al. 2012; Srinivas et al. 2013; Varsha 2018), and both Eastern Ghats of Andhra Pradesh (Behera & Borah 2010; Jhala et al. 2015) and Telangana (Sudhakar Reddy et al. 2019) (Figure 1), it has not been reported from Eastern Ghats of Tamil Nadu. In fact, extant numbers of individuals vary from report to report. The Canid Specialist Group (www.wildcanids.net) report that 2,500 mature individuals remain in the wild on the global scale and the declining trend is expected to continue. Kamler et al. (2015) estimate a total population of 4,500–10,500 animals of which 949–2,215 are mature individuals and most, if not all current subpopulations of Dholes are relatively small and isolated, and often exhibit extreme fluctuation in numbers.

Among the sub-populations of Dhole in southern Asia, Johnsingh (1985) reported that it is frequently seen in many of the protected areas south of the Ganga River, with the central Indian highland forests having the largest population of Dhole, followed by the Western Ghats of southern India. In Western Ghats, Bandipur National Park was presumed to have had the largest subpopulations of Dhole four decades back, a total population of 207–304 individuals and estimated 44–64 mature individuals (20–29 alpha males and 20–29 alpha females with 4–6 sub-dominant breeders (Johnsingh 1982). Dhole density in southern India over the last four decades vary between 14–100 /km^2; e.g., 31/100 km^2 (Venkataraman et. al. 1995) to 43/100 km^2 at Mudumalai (Ramesh 2010), 35–90/100 km^2 at Bandipur (Johnsingh 1983), and 14/100 km^2 at Nagarhole (Karanth 1993). Nevertheless, any new sight records from the lesser explored sites, contribute in understanding their occurrence and possible further exploration of its population status. We report one such sight record from Sirumalai Hills in Tamil Nadu.

Editor: Honnavalli N. Kumara, SACON, Coimbatore, India. **Date of publication:** 26 July 2020 (online & print)

Citation: Krishnakumar, B.M. & M.E. Ramanujam (2020). First photographic record of the Dhole *Cuon alpinus* (Mammalia: Carnivora: Canidae) from the Sirumalai Hills in Tamil Nadu, India. *Journal of Threatened Taxa* 12(10): 16373–16376. https://doi.org/10.11609/jott.5959.12.10.16373-16376

Funding: Khandige Herbs and Plantation (P) Ltd.

Competing interests: The authors declare no competing interests.

PITCHANDIKULAM FOREST CONSULTANTS

Acknowledgements: We wish to thank Mr. Vinod Bhat of Khandige Herbs and Plantations (P) Ltd. as well as Mr. Ramesh and field assistant/s for all the support and hospitality during our stints in Sirumalai.

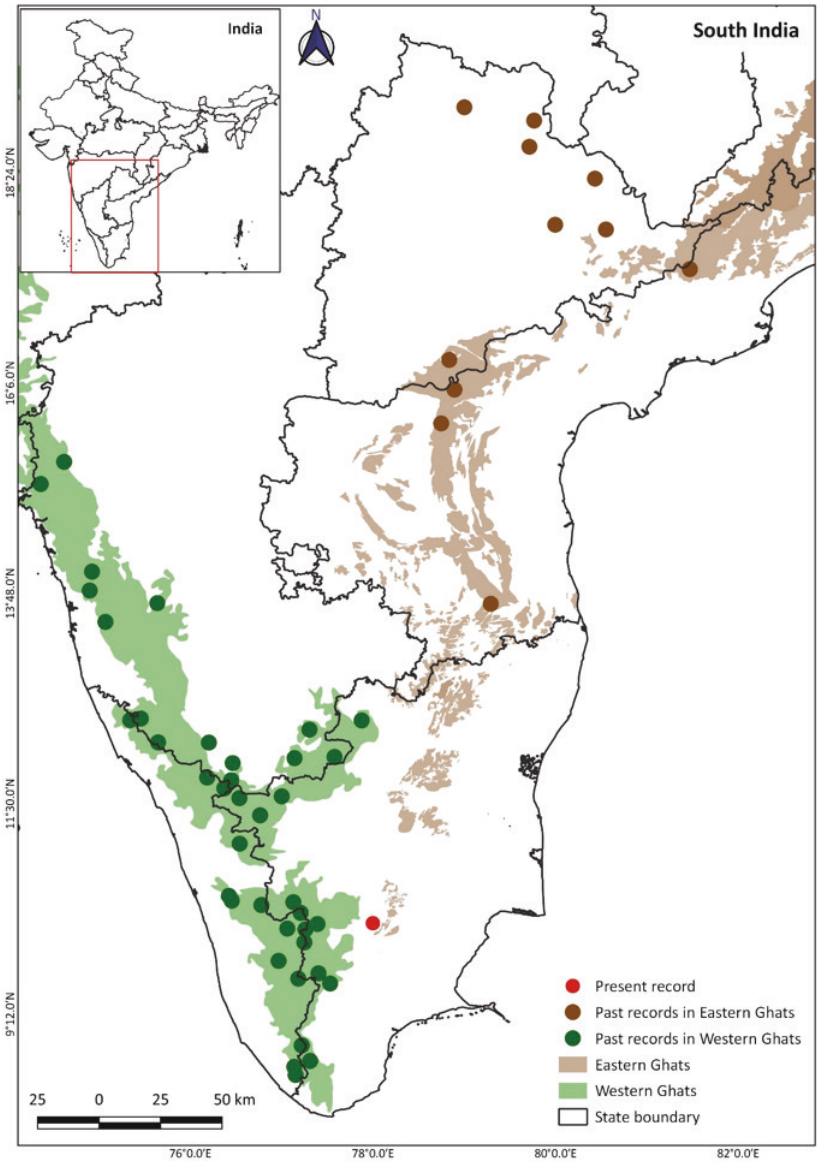

Figure 1. Records of Dhole *Cuon alpinus* in southern peninsular India along with present record from Khandige Estate in Sirumalai Hills, Tamil Nadu.

Image 1. Dhole *Cuon alpinus* sighted from Khandige Estate in Sirumalai Hills, Tamil Nadu. © A. Ramesh.

The Sirumalai Hills (10.194^{0}N & 77.996^{0}E) are a low range of hills situated 25km from Dindigul and 96.8km from Kodaikanal in Tamil Nadu and has an altitude of 1,600m. Khandige Estate or Namaste Estate is spread over 4.04km^2 in the Sirumalai Hills with two perennial streams flowing through it before reaching the plains. The estate is surrounded by reserve forest on three sides without any fences. Except for approximately 0.20 km^2 of cultivated area (Chayote *Sechium edule*, Lemon *Citrus limon*, and Banana *Musa* sp.), the rest is almost forest.

We, hereby, provide photographic evidence of the Dhole *Cuon alpinus* from Khandige Estate in Sirumalai (photographs were taken on 09 December 2017 & 05 January 2019; Image 1). Since the establishment of the estate, plantation workers and staff have been sighting these canids on and off and they are under the impression that not more than four individuals exist. The photographs were taken at the open areas of the Khandige Estate. The nearest area to the Sirumalai Hills with Dholes is Upper Palani plateau which lies c. 68km away from Sirumalai's west side. Davidar (1975) had recorded six Dholes feeding on Sambar *Rusa unicolor* and Indian Muntjac *Muntiacus muntjac* from upper Palani plateau, while Varsha (2018) has reported the presence of Dhole from Kodaikanal Wildlife Sanctuary.

Sirumalai Hills have been considered a broken chain of Palani Hills, separated from the latter by anthropogenically modified plains (Vijayakumar et al. 2002). But it is on record that "at their southern end, the Eastern Ghats form several ranges of low hills. The southernmost of the Eastern Ghats are the low Sirumalai and Karanthamalai hills of southern Tamil Nadu (Jayakumar et al. 2008; Sankar et al. 2009). Another anomaly is that the Sirumalai receives most of its rainfall (1,200–1,320 mm) in the months of October–December (North-east or Winter Monsoon) which is very similar to coastal Tamil Nadu (Blasco & Legris 1972; Mehr-Homji 1974). Uniquely, Kodaikanal which is only 96.8km from Sirumalai receives the bulk of its rainfall during the south-west or summer monsoon in July.

If established literature and climate are to be taken as essential parameters for the occurrence *of Cuon alpinus* then it is definitely first photographic evidence of the species in the Eastern Ghats of Tamil Nadu.

References

Behera, S. & J. Borah (2010). Mammal mortality due to road vehicles in Nagarjunasagar-Srisailam Tiger Reserve. *Mammalia* 74: 427–430. https://doi.org/10.1515/MAMM.2010.059

Blasco, F. & P. Legris (1972). Dry Evergreen forests of Point Calimere and Marakanam. *Journal of the Bombay Natural History Society* 70: 279–294.

Davidar, E.R.C. (1975). The Nilgiri Tahr. *Oryx* 13: 205–211. https://doi.org/10.1017/s0030605300013442

Jhala, Y.V., Q. Qureshi & R. Gopal (2015). The status of tigers, co-predators & prey in India 2014. National Tiger Conservation Authority, New Delhi & Wildlife Institute of India, Dehradun, India, 294pp.

Jayakumar, S., A. Ramachandran, G. Baskaran & J. Heo (2008). Forest dynamics in the Eastern Ghats of Tamil Nadu, India. *Environmental Management* 43: 326–345. https://doi.org/10.1007/s00267-008-9219-y

Jayson, E.A. (1998). Studies of Man-Wildlife conflict in Peppara Wildlife Sanctuary and adjacent areas. Kerala Forest Research Institute, Peechi, Thrissur, Kerala, India, 71pp.

Jayson, E.A. & K.K. Ramachandran (1996). Habitat utilization by larger mammals in Chinnar Wildlife Sanctuary. Kerala Forest Research Institute, Peechi, Thrissur, Kerala, India, 44pp.

Johnsingh, A.J.T. (1982). Reproduction and social behavior of the dhole *Cuon alpinus* (Canidae). *Journal of Zoology* 198: 443–463. https://doi.org/10.1111/jzo.1982.198.4.443

Johnsingh, A.J.T. (1983). Large mammalian prey-predators in Bandipur. *Journal of the Bombay Natural History Society* 80: 1–57.

Johnsingh, A.J.T. (1985). Distribution and status of dhole *Cuon alpinus* Pallas, 1811 in South Asia. *Mammalia* 49: 203–208. https://doi.org/10.1515/mamm.1985.49.2.203

Johnsingh, A.J.T. (2001). The Kalakkad-Mundanthurai Tiger Reserve: A global heritage of biological diversity. *Current Science* 80: 378–388.

Kamler, J.F., N. Songsasen, K. Jenks, A. Srivathsa, L. Sheng & K. Kunkel (2015). The IUCN Red List of Threatened Species. e.T5953A72477893. Accessed on 11 April 2020. http://doi.org/10.2305/IUCN.UK.2015-4.RLTS.T5953A72477893.en

Karanth, K.U. (1993). Predator-prey relationships among large mammals of Nagarahole National Park, (India). PhD Thesis, Department of Bioscience, Mangalore University, 180pp.

Karanth, K.U. & M.E. Sunquist (1995). Prey selection by tiger, leopard and dhole in tropical forests. *Journal of Animal Ecology* 64: 439–450. https://doi.org/10.2307/5647

Kumara, H.N., S. Rathnakumar, R. Sasi & M. Singh (2012). Conservation status of wild mammals in Biligiri Rangaswamy Temple Wildlife Sanctuary, the Western Ghats, India. *Current Science* 103: 933–940.

Kumaraguru, A., R. Saravanamuthu, K. Brinda & S. Asokan (2011). Prey preference of large carnivores in Anamalai Tiger. *European Journal of Wildlife Research* 57: 627–637. https://doi.org/10.1007/s10344-010-0473-y

Mehr-Homji, V.M. (1974). On the origin of tropical dry evergreen forest of South India. *International Journal of Ecology and Environmental Science* 1: 19–39.

Narasimen, R.K., A.M. Kumar, P.P.C. Jayam, S. Chinnaiyan, M. Nagarathinam & A.A. Desai (2013). *Status of Tigers, Co-Predators and Prey in the Wayanad Wildlife Sanctuary*. WWF-World Wide Fund For Nature, India, 57pp.

Nair, P.V., K.K. Ramachandran, V.S. Vijayan, P.S. Easa & P.V. Balakrishnan (1985). An ecological study in Periyar Tiger Reserve with special reference to wildlife. Kerala Forest Research Institute, Peechi, Thrissur, Kerala, India, 159pp.

Naresh, B. (2012). Indian Giant Squirrel (*Ratufa indica*) Population size and Habitat use in Srivilliputhur Grizzled giant squirrel wildlife sanctuary, Tamil Nadu. MSc thesis, Wildlife Biology, A.V.C. College, Tamil Nadu, 55pp.

Ramesh, T. (2010). Prey selection and food habits of large carnivores: tiger *Panthera tigris*, leopard *Panthera pardus* and dhole *Cuon alpinus* in Mudumalai Tiger Reserve, Tamil Nadu. PhD Thesis, Department of Wildlife Science, Saurashtra University, xvii+173.

Ramesh, T., R. Kalle, K. Sankar & Q. Qureshi (2012). Dietary partitioning in sympatric large carnivores in tropical forest of Western Ghats, India. *Mammal Study* 37: 85–89. https://doi.org/10.3106/041.037.0405

Rice, C.G. (1986). Observations on predators and prey in Eravikulan National Park, Kerala. *Journal of the Bombay Natural History Society*

83: 283–305.

Sankar,R.V., R. Kottaimuthu & K. Ravikumar (2009). Additions to the flora of Sirumalai Hills, Eastern Ghats, India. *Journal of Threatened Taxa* 1(7): 379–381. https://doi.org/10.11609/JoTT.o2069.379-81

Shahid, S.D. & A.K. Jamal (2016). Food habits of dhole *Cuon alpinus* in tropical forests of southern India. *Current Science* 111: 1701–1705. http://doi.org/10.18520/cs/v111/i10/1701-1705

Srinivas, G., S. Babu, H.N. Kumara & S. Molur (2013). Assessing the status and distribution of large mammals in Highwavy and its environs, southern Western Ghats. Technical Report 114 submitted to CEPF-ATREE Small Grants and Rufford Small Grants. Coimbatore, India, 64pp.

Reddy, C.S., G. Sailu & J. Swamy (eds.) (2019). Telangana State Biodiversity Field Guide. Telangana State Biodiversity Board, Telangana, 311pp.

Varsha, M.K. (2018). A study on diversity of large carnivores using line transect and camera trap methods in Kodaikkanal Wildlife Sanctuary, Western Ghats. MSc Thesis, Ecology and Environmental Sciences, Pondicherry University, Puducherry, 34pp.

Venkataraman, A.B., R. Arumugam & Sukumar (1995). The foraging ecology of dhole (*Cuon alpinus*) in Mudumalai Sanctuary, southern India. *Journal of Zoology* 237: 543–561. https://doi.org/10.1111/j.1469-7998.1995.tb05014.x

Vijayakumar, S.P., D. Venugopal & V. Kapoor (2002). Inventory of the Flora and Fauna of Khandige Estate – Sirumalai hills. Tamil Nadu, southern India. Unpublished report submitted to Khandige Herbs and Plantations (P) Ltd., 78pp.

Vishnu, V. (2012). Food habits and prey abundance of Dhole (*Cuon alpinus*) in Parambikulam Tiger Reserve, Kerala. MSc Thesis, Wildlife Biology, A.V.C. College, Tamil Nadu, 46pp.

Corrigendum

Patwardhan, A. & R. Khot (2020). Description of a new species of the genus *Lampropsephus* Fleutiaux, 1928 (Coleoptera: Elateridae: Elaterinae: Dicrepidiini) from Konkan, Maharashtra, India. *Journal of Threatened Taxa* 12(1): 15181–15185. https://doi.org/10.11609/jott.1878.12.1.15181-15185

In the original publication of this short communication, published on 26 January 2020 (*Journal of Threatened Taxa* 12(1): 15181–15185) <https://doi.org/10.11609/jott.187812115181-15185>, the authors had proposed a transfer of *Propsephus assamensis* (Schwarz, 1905) to *Sephilus assamensis* (Schwarz, 1905) followed by the suffix 'syn. nov.' However, the correct suffix usage for the 'change of generic assignment' should be 'comb. nov.' as per the ICZN article 48. Additionally, this transfer doesn't require any change in the spelling of specific name (ICZN article 34.2.1). Thus, the corrected proposed name is ***Sephilus assamensis* (Schwarz, 1905) comb. nov.**

Journal of Threatened Taxa

www.threatenedtaxa.org

PLATINUM OPEN ACCESS

ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

July 2020 | Vol. 12 | No. 10 | Pages: 16195–16406
Date of Publication: 26 July 2020 (Online & Print)
DOI: 10.11609/jott.2020.12.10.16195-16406

Member

FJN

Publisher & Host

WILD ZOOREACH

Threatened Taxa