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

B.M. Krishnakumar1 & M. Eric Ramanujam2

1PG and Research Department of Zoology and Wildlife Biology, A.V.C. College (Autonomous), Mannampandal, Mayiladuthurai, Tamil Nadu 609305, India.
2Principal Investigator (Faunistics), Pitchandikulam Bioresource Centre / Pitchandikulam Forest Consultants, Auroville, Tamil Nadu 605101, India.

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 /km²; e.g., 31/100 km² (Venkataraman et. al. 1995) to 43/100 km² at Mudumalai (Ramesh 2010), 35–90/100 km² at Bandipur (Johnsingh 1983), and 14/100 km² 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.
First photographic record of Dhole in Sirumalai Hills

K rishnakumar & Ramanujam

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°N & 77.996°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 4.04km² 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 km² 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 Hills (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 Kodaikanal in Tamil Nadu and has an altitude of 2,050m. Khandige Estate or Namaste Estate is spread over 4.04km² 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 km² of cultivated area (Chayote Sechium edule, Lemon Citrus limon, and Banana Musa sp.), the rest is almost forest. 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. Legis (1973). 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/S0305006800013442

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

Jayakumar, S., A. Ramachandran, G. Baskaran & I. 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/j.1469-7998.1982.tb08443.x

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 & R. Kunkel (2015). The IUCN Red List of Threatened Species. e.T5953A72477893. Accessed on 11 April 2020. http://doi.org/10.2305/IUCN.UK.2015-4.01.T5953A72477893.en

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

Karthikeyan, R. & M.E. Sunquist (1995). Presy 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.

Narasimam, R.K., A.M. Kumar, P.P.C. Jayam, S. Chinnaiyan, M. Nagarathnam & 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.

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

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
First photographic record of Dhole in Sirumalai Hills

Krishnakumar & Ramanujam

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

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.
Pakshirajan Lakshminarasimhan: a plant taxonomist who loved plants and people alike
— Mandar N. Datar, Pp. 16195–16203

Communications

The worrisome conservation status of ecosystems within the distribution range of the Spectacled Bear Tremarctos ornatus (Mammalia: Carnivora: Ursidae) in Ecuador
— José Guerrero-Casado & Ramón H. Zambrano, Pp. 16204–16209

Living with Leopard Panthera pardus fusca (Mammalia: Carnivora: Felidae): livestock depredation and community perception in Kalakad-Mundanthurai Tiger Reserve, southern Western Ghats
— Bawa Motihal Krishnakumar, Rajarathinavelu Nagarajan & Kanagaraj Muthamish Selvan, Pp. 16210–16218

An updated checklist of mammals of Odisha, India
— Subrat Debata & Himanshu Shekhar Palei, Pp. 16219–16229

Negative human-wildlife interactions in traditional agroforestry systems in Assam, India
— Yashmita-Ulman, Manoj Singh, Awadhesh Kumar & Madhubala Sharma, Pp. 16230–16238

Prevalence and morphotype diversity of Trichuris species and other soil-transmitted helminths in captive non-human primates in northern Nigeria
— Joshua Kamani, James P. Yidaw, Aliyu Sada, Emmanuel G. Msheliza & Usman A. Turaki, Pp. 16239–16244

Detection of hemoparasites in bats, Bangladesh
— Shafiqul Islam, Rakib Uddin Ahmed, Md. Kaisar Rahman, Jinnat Ferdous, Md. Helal Uddin, Sazeda Akter, Abdullah Al Faruq, Mohammad Mahmudul Hassan, Asorafal Islam & Ariful Islam, Pp. 16245–16250

Ecology of the Critically Endangered Singidia Tilapia (Teleostei: Cichlidae: Oreochromis esculentus) of Lake Kayanja, Uganda and its conservation implications
— Richard Olwe, Herbert Nakiyende, Elias Muhumuza, Samuel Bassa, Anthony Taabu, Munyaho & Winnie Ninkulo, Pp. 16251–16256

Length-weight relationships of two conservation-concern mahseers (Teleostei: Cyprinidae: Tor) of the river Cauvery, Karnataka, India
— Adrian C. Pinder, Rajeev Raghavan, Shannon D. Bower & J. Robert Britton, Pp. 16257–16261

The identity and distribution of Bhavania annandali Hora, 1920 (Cyperiniformes: Ballotidaceae), a hillstream loach endemic to the Western Ghats of India
— Remya L. Sundar, V.K. Anoop, Arya Sidharthan, Neelesh Dahanukar & Rajeev Raghavan, Pp. 16262–16271

Records of two toads Duttaphrynus melanostictus and D. stomaticus (Amphibia: Anura: Bufonidae) from southeastern India
— S.R. Ganesh, M. Rameshwaran, Naveen A. Joseph, Ahamed M. Jerith & Sushil K. Dutta, Pp. 16272–16278

Some rare damselflies and dragonflies (Odonata: Zygoptera and Anisoptera) in Ukraine: new records, notes on distribution, and habitat preferences
— Alexander V. Martynov, Pp. 16279–16294

Floristic diversity of Anjaneri Hills, Maharashtra, India
— Sanjay Gajanant Auli, Sharad Suresh Kambele, Kumar Vinod Chhotupuri Gosavi & Arun Nivrutti Chandra, Pp. 16295–16313

A checklist of macrofungi (mushroom) diversity and distribution in the forests of Tripura, India
— Sanjit Debnath, Ramesh Chandra Upadhyay, Rahul Saha, Koushik Majumdar, Panna Das & Ajay Krishna Saha, Pp. 16314–16346

Notes

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, Pp. 16373–16376

Tracing heavy metals in urban ecosystems through the study of bat guano
— Jithin Johnson & Moncey Vincent, Pp. 16377–16379

Population dynamics and management strategies for the invasive African Catfish Clarias gariepinus (Burchell, 1822) in the Western Ghats hotspot
— Kuttanelloor Roshni, Chelapurath Radhakrishnan Renjikumar, Rajeev Raghavan, Neelesh Dahanukar & Kutty Ranjeet, Pp. 16380–16384

First records of the black widow spider Latrodectus elegans Thorell, 1898 (Araneae: Theridiidae) from Nepal
— Binu Shrestha & Tobias Dörr, Pp. 16385–16388

First report of the assassin bug Epiusus wangi (Heteroptera: Reduviidae: Harpactorinae) from India
— Swapnil S. Boyane & Hemant V. Ghathe, Pp. 16389–16391

Observations of the damselfly Platylestes cf. platystylus Rambur, 1842 (Insecta: Odonata: Zygoptera: Lestidae) from peninsular India
— K.J. Rison & A. Vivek Chandran, Pp. 16392–16395

Hermannium longilobatum (Orchidaceae), a new record for Bhutan
— Ugen Dechen, Tandin Wangchuk & Lam Norbu, Pp. 16396–16398

Recent record of a threatened holoparasitic plant Sopria himalayana Griff. in Mekhao Wildlife Sanctuary, Arunchal Pradesh, India
— Arif Ahmad, Amit Kumar, Gopal Singh Rawat & G.V. Gopi, Pp. 16399–16401

Eleven new records of lichens to the state of Kerala, India
— Sonia Anna Zachariah, Sanjeeva Nayaka, Siljo Joseph, Pooja Gupta & Scarla Kadookunnel Varghese, Pp. 16402–16406

Short Communications

A threat assessment of Three-striped Palm Squirrel Funambulus palmarum (Mammalia: Rodentia: Sciuridae) from roadkills in Sigur Plateau, Mudumalai Tiger Reserve, Tamil Nadu, India
— Arockianathan Samson, Balasundaram Ramakrishnan & Jabamalainathan Leonaprincy, Pp. 16347–16351

Impact of vehicular traffic on birds in Tiruchirappalli District, Tamil Nadu, India
— T. Siva & P. Neelanarayanan, Pp. 16352–16356

Ichthyofaunal diversity of Manjeera Reservoir, Manjeera Wildlife Sanctuary, Telangana, India
— Kante Krishna Prasad, Mohammad Younus & Chelmala Srinivasulu, Pp. 16357–16367

New distribution record of the endemic and critically endangered Giant Staghorn Fern Platycerium grande (Fée) Kunze (Polypodiaceae) in central Mindanao
— Cherie Cano-Mangoang & Charissa Joy Arroyo Gumban, Pp. 16368–16372

First report of the assassin bug Epiusus wangi (Heteroptera: Reduviidae: Harpactorinae) from India
— Swapnil S. Boyane & Hemant V. Ghathe, Pp. 16389–16391

Observations of the damselfly Platylestes cf. platystylus Rambur, 1842 (Insecta: Odonata: Zygoptera: Lestidae) from peninsular India
— K.J. Rison & A. Vivek Chandran, Pp. 16392–16395

Hermannium longilobatum (Orchidaceae), a new record for Bhutan
— Ugen Dechen, Tandin Wangchuk & Lam Norbu, Pp. 16396–16398

Recent record of a threatened holoparasitic plant Sopria himalayana Griff. in Mekhao Wildlife Sanctuary, Arunchal Pradesh, India
— Arif Ahmad, Amit Kumar, Gopal Singh Rawat & G.V. Gopi, Pp. 16399–16401

Eleven new records of lichens to the state of Kerala, India
— Sonia Anna Zachariah, Sanjeeva Nayaka, Siljo Joseph, Pooja Gupta & Scarla Kadookunnel Varghese, Pp. 16402–16406