

The Journal of Threatened Taxa (JoTT) is dedicated to building evidence for conservation globally by publishing peer-reviewed articles online every month at a reasonably rapid rate at www.threatenedtaxa.org. All articles published in JoTT are registered under [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/) unless otherwise mentioned. JoTT allows unrestricted use, reproduction, and distribution of articles in any medium by providing adequate credit to the author(s) and the source of publication.

Journal of Threatened Taxa

Building evidence for conservation globally

www.threatenedtaxa.org

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

SHORT COMMUNICATION

RECENT PHOTOGRAPHIC RECORDS OF FISHING CAT

PRIONAILURUS VIVERRINUS (BENNETT, 1833) (CARNIVORA: FELIDAE) IN THE AYEYARWADY DELTA OF MYANMAR

Naing Lin & Steven G. Platt

26 May 2019 | Vol. 11 | No. 7 | Pages: 13910–13914

DOI: 10.11609/jott.4795.11.7.13910-13914



For Focus, Scope, Aims, Policies, and Guidelines visit <https://threatenedtaxa.org/index.php/JoTT/about/editorialPolicies#custom-0>

For Article Submission Guidelines, visit <https://threatenedtaxa.org/index.php/JoTT/about/submissions#onlineSubmissions>

For Policies against Scientific Misconduct, visit <https://threatenedtaxa.org/index.php/JoTT/about/editorialPolicies#custom-2>

For reprints, contact [<ravi@threatenedtaxa.org>](mailto:ravi@threatenedtaxa.org)

The opinions expressed by the authors do not reflect the views of the Journal of Threatened Taxa, Wildlife Information Liaison Development Society, Zoo Outreach Organization, or any of the partners. The journal, the publisher, the host, and the partners are not responsible for the accuracy of the political boundaries shown in the maps by the authors.

Partner



صندوق محمد بن زايد
للمحافظة على
الكائنات الحية

The Mohamed bin Zayed
SPECIES CONSERVATION FUND

Member



Publisher & Host





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

PLATINUM
OPEN ACCESS



RECENT PHOTOGRAPHIC RECORDS OF FISHING CAT *PRIONAILURUS VIVERRINUS* (BENNETT, 1833) (CARNIVORA: FELIDAE) IN THE AYEYARWADY DELTA OF MYANMAR

Naing Lin¹ & Steven G. Platt²

^{1,2} Wildlife Conservation Society - Myanmar Program, No. 12, Nanrattaw St., Kamayut Township, Yangon, Myanmar.

¹nilzwm@gmail.com, ²sgplatt@gmail.com (corresponding author)

Abstract: The distribution of the Fishing Cat *Prionailurus viverrinus* (Carnivora: Felidae) in Myanmar remains poorly known owing to a paucity of verifiable field records. We here present two recent photographic records that confirm the occurrence of the Fishing Cat in the Ayeyarwady Delta of southern Myanmar. Our photographic records together with other reports and the availability of suitable wetland habitat suggest that the Ayeyarwady Delta is globally important for Fishing Cat conservation. Deforestation, driven largely by agriculture, however, is of concern for the future survival of the Fishing Cat in Myanmar. Additional surveys are warranted to further resolve the distribution of the Fishing Cat in Myanmar.

Keywords: Carnivore, conservation status, distribution record, wetland.

The Fishing Cat *Prionailurus viverrinus* is a small, wetland-dependent cat with an extensive albeit discontinuous geographic range in southern and southeastern Asia (Mukherjee et al. 2016; Chutipong et al. 2019; Poudel et al. 2019). The distribution and occurrence of the Fishing Cat within this extensive geographic range remains ill-defined and poorly known owing to the 1) the paucity of recent authenticated records, the 2) the numerous unauthenticated,

ambiguous, and erroneous records, and the 3) the difficulties associated with detecting this small cat in the wild (Mukherjee et al. 2016). This situation is lamentable because Fishing Cat populations are thought to be declining at an alarming rate in all range countries, especially those in southeastern Asia (Mukherjee et al. 2016). Accurate distribution data, particularly from protected areas, are an essential prerequisite for designing effective conservation strategies (Dodd & Franz 1993; Stohlgren et al. 1994). Indeed, targeted conservation efforts for Fishing Cat are frequently hindered by the lack of reliable distribution and occurrence data (Duckworth et al. 2009, 2010; Mukherjee et al. 2012, 2016; Than Zaw et al. 2014).

Similar to other range countries in southeastern Asia (e.g., Duckworth et al. 2010; Rainey & Kong 2010), data on the occurrence and distribution of Fishing Cat in Myanmar are sparse (Than Zaw et al. 2014; Mukherjee et al. 2016). According to Morris (1936), two Fishing Cats were encountered and one collected along the Chindwin River near Dalu (Taro) in what is now Hukaung Valley Wildlife Sanctuary (Fig. 1). Shepherd & Nijman (2008)

DOI: <https://doi.org/10.11609/jott.4795.11.7.13910-13914> | **ZooBank:** urn:lsid:zoobank.org:pub:829D08E6-9432-432F-9D57-5EDCF21D39F2

Editor: Angie Appel, Wild Cat Network, Germany.

Date of publication: 26 May 2019 (online & print)

Manuscript details: #4795 | Received 04 January 2019 | Final received 26 March 2019 | Finally accepted 16 May 2019

Citation: Lin, N. & S.G. Platt (2019). Recent photographic records of Fishing Cat *Prionailurus viverrinus* (Bennett, 1833) (Carnivora: Felidae) in the Ayeyarwady Delta of Myanmar. *Journal of Threatened Taxa* 11(7): 13910–13914. <https://doi.org/10.11609/jott.4795.11.7.13910-13914>

Copyright: © Lin & Platt 2019. Creative Commons Attribution 4.0 International License. JoTT allows unrestricted use, reproduction, and distribution of this article in any medium by adequate credit to the author(s) and the source of publication.

Funding: Margaret A. Cargill Foundation and Andrew Sabin and the Andrew Sabin Family Foundation.

Competing interests: The authors declare no competing interests.

Acknowledgements: Support for this project was provided by Margaret A. Cargill Foundation. Additional support was provided to SGP by Andrew Sabin and the Sabin Family Foundation. We thank Za Htoo Aung for facilitating our work in MKWS and Htet Lin Kyaw and Pyae Phyo Aung for field assistance. The efforts of Than Myint, Saw Htun, Thet Zaw Naing, and Alex Diment contributed to the success of our endeavour. We are especially grateful to Ai Suzuki for sharing her extensive knowledge of Fishing Cat biology, Onishi Shingo for granting us permission to include his excellent image in this paper, Htun Myint for suggestions regarding potential survey areas, Deb Levinson for assistance with obtaining literature, Kyaw Zay Ya for preparing our map, and Will Duckworth, Alexander Sliwa, Daniel Willcox, and Shomita Mukherjee for confirming that the cats in our images are indeed Fishing Cats. An early draft of our manuscript benefited from the comments of Thomas “Chief” Rainwater, Will Duckworth, and Lewis Medlock.



recorded 37 Fishing Cat skins offered for sale at illicit wildlife markets in Tachilek during 1991–1992, although the origin of these skins could not be determined with any degree of certainty. Furthermore, given the frequent misidentifications of even living animals, the reliability of these identifications are open to question. Similarly, a mounted specimen of unknown provenance (but presumably from Myanmar) was photographed in a Yangon curio shop in 2011 (Than Zaw et al. 2014). In the Ayeyarwady Delta, Forest Department staff reportedly observed Fishing Cats during an Estuarine Crocodile *Crocodylus porosus* survey of Meinmahla Kyun Wildlife Sanctuary (MKWS; Fig. 1), although no corroborating evidence (such as images) are available to confirm these sightings (Thorbjarnarson et al. 1999). Five Fishing Cats held in the Yangon Zoo were said to be captive-bred progeny from adults collected in the region during the late 1990s (Than Zaw et al. 2014). Despite the paucity of recent verifiable field records, Mukherjee et al. (2016) nonetheless suggested that Ayeyarwady Delta is likely to represent a globally important area for Fishing Cat conservation owing to the widespread availability of potentially suitable habitat. We here present two recent photographic records of known provenance that confirm the occurrence of Fishing Cat in the Ayeyarwady Delta. To our knowledge, these are the first verifiable locality-based records of Fishing Cat in Myanmar since the account of Morris (1936).

Our first photographic record of a Fishing Cat was taken by Onishi Shingo in MKWS on 20 February 2016 (Image 1). MKWS is an ASEAN Heritage Site comprising 137 km² of mangrove swamp, scrub forest, and wet grassland in the lower Ayeyarwady Delta (Beffasti & Galanti 2011). Much of MKWS is being converted to Phoenix Palm *Phoenix paludosa* thickets as a result of widespread illegal cutting of mangroves for fuelwood (Harris et al. 2016). The Fishing Cat was photographed from a passing boat while sitting on the bank of a tidal creek (Fig. 1; Polaung Lay Chaung; 15.973°N & 95.287°E; altitude = 1.0 m). The bedraggled appearance of the cat suggests that it was foraging in the creek shortly before the image was taken.

Our second photographic record of a Fishing Cat was obtained from an automated game camera deployed at a commercial fish pond approximately 17 km north of Maubin (Maubin Township) in Ayeyarwady Region. This low-lying site (16.819°N & 95.695°E; altitude = 4.0 m) is located within an anthropogenic landscape characterized by commercial fish ponds, rice fields, and natural wetlands laced with an extensive network of creeks, drainage ditches, and irrigation canals. Fallow

agricultural fields, natural wetlands, and embankments along creeks and canals support dense stands of high grass. During a casual conversation with two villagers participating in a Sarus Crane *Antigone antigone* survey (Thet Zaw Naing & Naing Lin unpub. data), we learned that small wild cats, perhaps Fishing Cats, are occasionally taken in traps and snares set for civets (Viverridae), the latter being locally hunted for domestic consumption. In response to these reports, we visited the site in April 2018 and noted tracks and scats (with a diameter <25 mm), consistent with published descriptions for those of Fishing Cats (Francis 2008; Cutter 2015; Naidu et al. 2015; Platt & Duckworth 2019).

We returned in May 2018 and deployed automated game cameras (HCO Scout Guard®) without bait in the bed of a recently drained fishpond having an abundance of felid tracks. The berm surrounding the fish pond supported dense stands of tall grass, while pools of standing water, some containing fish, aquatic vegetation, and emerging grass, were present in the pond bed. From 09 to 11 May 2018, we deployed three motion-sensitive game cameras, (programmed to take a single burst of three images at 1-min intervals) for six trap nights. Each game camera was set in the early evening (ca. 17.00 h) and recovered the following morning (ca. 07.00 h) to reduce the likelihood of theft. The game cameras were positioned to cover likely avenues of wildlife movement along the periphery of the drying pond.

On the night of 10–11 May 2018, one game camera captured a sequence of four images (04.27–04.33 h) of a Fishing Cat (Image 2). The first image shows a cat moving perpendicular to the field of view along the edge of the vegetation-mud interface. In the following image, the cat is standing <30 cm away from the lens and looking directly into the camera. Owing to the proximity of the cat to the camera, the image is washed out and little detail is evident other than the silhouette of the head. The third and fourth images were taken about five minutes later and show a Fishing Cat moving perpendicular to the field of view in the same direction as the individual captured in the first image. The legs and belly of the cat in the last two images appear to be wet, indicating the cat was wading in shallow water shortly before the camera was triggered. Although Leopard Cat *Prionailurus bengalensis* could potentially occur in the Ayeyarwady Delta, we identified the cat in our images as a Fishing Cat based on its large body size, pale grey colouration of the fur, relatively small black spots in distinct rows, short tail, neck stripes, and smallish, rounded ears positioned well back on the head. In contrast, Leopard Cat is smaller with a less elongated head, yellowish-brown fur which is

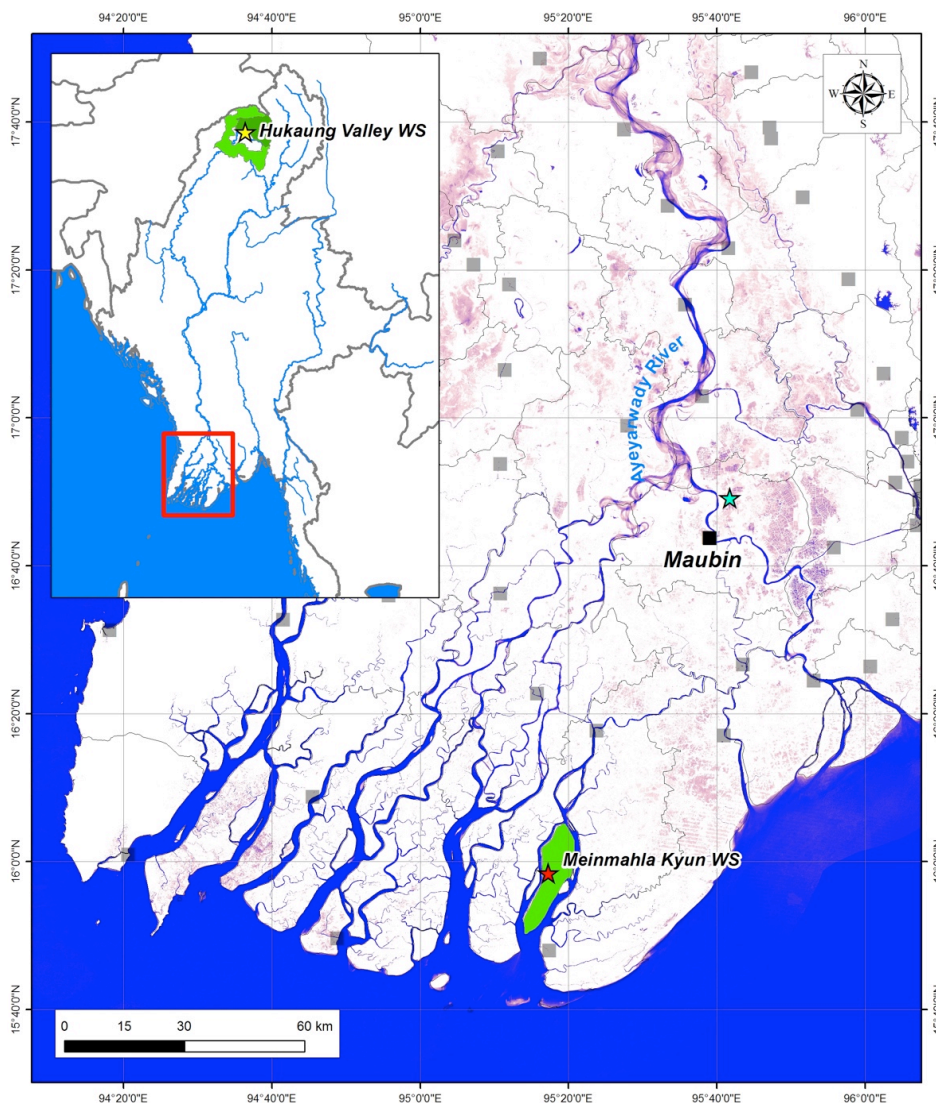


Figure 1. Confirmed locality records for Fishing Cat *Prionailurus viverrinus* in the Ayeyarwady Delta. Red and blue stars denote Fishing Cats photographed along Polaung Chaung in Meinmahla Kyun WS and at a commercial fish pond near Maubin, respectively. Grey squares indicate urban population centres. Inset shows Hukaung Valley WS and Ayeyarwady Delta (red box) within Myanmar. Yellow star denotes approximate location of specimen collected by Morris (1936).

lighter on the underside, large black or brown spots, and a longer, bushy tail (Sunquist & Sunquist 2002; Francis 2008; Breton & Sanderson 2011).

Our recent (2016 & 2018) photographic records confirm the occurrence of Fishing Cat at two widely separated locations (ca. 105km apart) in the Ayeyarwady Delta and provide conclusive evidence for its occurrence in Myanmar (Than Zaw et al. 2014; Mukherjee et al. 2016). Importantly, our photographic records compliment previous unconfirmed reports from the Ayeyarwady Delta (Thorbjarnarson et al. 1999; Than Zaw et al. 2014). As suggested by Mukherjee et al. (2016), the Ayeyarwady Delta is globally important for Fishing Cat conservation, possibly supporting a “large”

population owing to the extent of potential habitat in the region.

Habitat destruction, particularly of coastal mangrove forests, is of great concern for Fishing Cat conservation both globally (Sunquist & Sunquist 2002) and specifically in the Ayeyarwady Delta (Mukherjee et al. 2016). Spatial analysis of forest cover change in Myanmar indicates that mangroves are experiencing some of the highest deforestation rates of all forest types, with 20% lost in the Ayeyarwady Delta between 1990 and 2000 (Blasco et al. 2001; Leimgruber et al. 2005). According to Holmes et al. (2014), 92% of mangrove forests in the delta are impacted by some form of anthropogenic disturbance, ranging from occasional fuelwood collection to complete



Image 1. Fishing Cat photographed along Polaung Chaung in Meinmahla Kyun Wildlife Sanctuary on 20 February 2016.



Image 2. Fishing Cat recorded by an automated game camera deployed at a commercial fish pond near Maubin on 11 May 2018. © Wildlife Conservation Society–Myanmar Program.

clearance, with agricultural expansion being the primary driver of deforestation in this region (Webb et al. 2014). Only about 25,000ha of mangrove forest remain in the delta, with MKWS containing the largest contiguous tract (Holmes et al. 2014; Webb et al. 2014; Harris et al. 2016). Although complacency is unwarranted, Fishing Cat appears capable of surviving in human-modified landscapes (Mukherjee et al. 2016) and may be less affected by mangrove forest loss than other wetland fauna. Janardhanan et al. (2014) even suggest that commercial fish ponds may enhance Fishing Cat populations by providing a source of readily obtainable food.

Globally, poaching, subsistence hunting, and retribution killings for livestock depredation are all considered threats to the continued survival of Fishing Cat populations (Mukherjee et al. 2016). That said, we have yet to find any evidence of widespread hunting of Fishing Cat in the Ayeyarwady Delta. The limited sample of villagers we talked to mentioned only the occasional capture of small wild cats, perhaps Fishing Cat, as by-catch in traps intended for civets. More extensive interview-based surveys (e.g., Platt et al. 2017), however, complemented by objectively triangulated information relevant to species identification are required to fully assess the threats posed by harvesting to Fishing Cats in the Ayeyarwady Delta. In addition to anthropogenic threats, MKWS harbours one of the largest remaining populations of Estuarine Crocodile in mainland southeastern Asia (Platt et al. unpub. data; Thorbjarnarson et al. 2000) and Fishing Cat is probably vulnerable to crocodile predation when foraging along tidal creeks. Although we are unaware of any verified records of crocodiles preying on Fishing Cats, similar-sized terrestrial mammals are well-documented in the

diet of Estuarine Crocodiles (e.g., Evans et al. 2017; Samarasinghe & Alwis 2017).

In conclusion, additional surveys are warranted and, in light of range-wide declines, urgently needed to resolve the distribution and conservation status of the Fishing Cat in Myanmar. Given the availability of habitat and confirmed occurrence of Fishing Cat in the Ayeyarwady Delta, this region should be prioritized for initial survey efforts. Follow-up efforts should target wetlands throughout the coastal zone, particularly those in Rakhine and Mon states and Tanintharyi Region where significant tracts of mangrove forests, grass swamps, and other wetlands still remain. Importantly, survey efforts should not be restricted to coastal habitats. The historical record from the Hukaung Valley in northern Myanmar (Morris 1936) indicates that Fishing Cat could potentially occur anywhere in the Ayeyarwady-Chindwin River basin where appropriate habitat is present.

REFERENCES

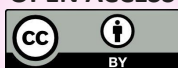
- Beffasti, L. & V. Galanti (2011). Myanmar Protected Areas: Context, Current Status, and Challenges. Instituto Oikos, Ancora Libri, Milan, 86pp.
- Blasco, F., M. Aizpuru & C. Gers (2001). Depletion of the mangroves of continental Asia. *Wetlands Ecology and Management* 9(3): 245–256.
- Breton, G. & J. Sanderson (2011). Mistaken identity. *Cat News* 55: 36–47.
- Chutipong, W., A. Kamjing, W. Klinsawat, D. Ngoprasert, K. Phosri, N. Sukumal, P. Wongtung & N. Tantipisanuh (2019). An update on the status of Fishing Cat *Prionailurus viverrinus* Bennet, 1833 (Carnivora: Felidae) in Thailand. *Journal of Threatened Taxa* 11(4): 13459–13469. <https://doi.org/10.11609/JOTT.4557.11.4.13459-13469>
- Cutter, P. (2015). Fishing Cat Ecology: Food Habits, Home Ranges,

- Habitat Use and Mortality in a Human-dominated Landscape around Khao Sam Roi Yot Area, Peninsular Thailand. MSc Thesis. University of Minnesota, Minneapolis, 57pp.
- Dodd, C.K. Jr. & R. Franz (1993). The need for status information on common herpetofaunal species. *Herpetological Review* 24(2): 47–50.
- Duckworth, J.W., C.R. Shepherd, G. Semiadi, P. Schauenberg, J. Sandersom, S.I. Robertson, T.G. O'Brien, T. Maddox, M. Linkie, J. Holden & N.W. Brickle (2009). Does the Fishing Cat inhabit Sumatra? *Cat News* 51: 4–9.
- Duckworth, J.W., T. Stones, R. Tizard, S. Watson & J. Wolstencroft (2010). Does the Fishing Cat inhabit Laos? *Cat News* 52: 4–7.
- Evans, L.J., A.B. Davies, B. Goossens & G.P. Anser (2017). Riparian vegetation structure and the hunting behavior of adult Estuarine Crocodiles. *PLoS ONE* 12(10): e0184804. <https://doi.org/10.1371/journal.pone.0184804>
- Francis, C.M. (2008). *A Field Guide to the Mammals of Thailand and South-east Asia – 1st Edition*. Asia Books, Bangkok, New Holland Ltd. (UK), 392pp.
- Harris, C., K. Lorenz, N. Bax & P. Oswald (2016). Land Cover Classification of the Meinmahla Kyun Wildlife Sanctuary, Ayeyarwady Region, Myanmar: Pilot Project. Fauna & Flora International, Cambridge, 28pp.
- Holmes, K.E., Tint Tun, Kyaw Thinn Latt, M. Subedee, S.V. Khadke & A.E. Hostetler (2014). Marine Conservation in Myanmar: Current Knowledge and Research Recommendations. Wildlife Conservation Society, Bronx, New York, 202pp.
- Janardhanan, R.S., S. Mukherjee, P.V. Karunakaran & R. Athreya (2014). On the occurrence of the Fishing Cat *Prionailurus viverrinus* Bennett, 1833 (Carnivora: Felidae) in coastal Kerala, India. *Journal of Threatened Taxa* 6(3): 5569–5573. <https://doi.org/10.11609/JoTT.o3780.5569-73>
- Leimgruber, P., D.S. Kelly, M.K. Steininger, J. Brunner, T. Müller & M. Songer (2005). Forest cover patterns in Myanmar (Burma) 1990–2000. *Environmental Conservation* 32: 356–364.
- Morris, R.C. (1936). The Vernay-Hopwood Upper Chindwin Expedition. *Journal of the Bombay Natural History Society* 38: 647–671.
- Mukherjee, S., A. Appel, J.W. Duckworth, J. Sanderson, S. Dahal, D.H.A. Willcox, V. Herranz-Muñoz, G. Malla, A. Ratnayaka, M. Kantimahanti, A. Thudugala, R. Thaug & H. Rahman (2016). *Prionailurus viverrinus*. In: The IUCN Red List of Threatened Species: eT18150A50662615. Accessed 28 December 2018. <https://doi.org/10.2305/IUCN.UK.2016-2.RLTS.T18150A50662615.en>
- Mukherjee, S., T. Adhya, P. Thitte & U. Ramakrishnan (2012). Survey of the Fishing Cat *Prionailurus viverrinus* Bennett, 1833 (Carnivora: Felidae) and some aspects of its conservation in India. *Journal of Threatened Taxa* 4(14): 3355–3361. <https://doi.org/10.11609/JoTT.o3199.3355-61>
- Naidu, A., M. Kantimahanti, N.P. Kumar, K. Thompson, S.S. Sreedhar & A. Rao (2015). Recent records of fishing cat and its conservation in coastal South India. *Cat News* 62: 7–9.
- Platt, S.G. & J.W. Duckworth (2019). Claw imprints in Leopard Cat tracks – implications for foot-print-based Fishing Cat claims. *Cat News* 69: 36–38.
- Platt, S.G., Tint Lwin, Naing Win, Htay Lin Aung, K. Platt & T.R. Rainwater (2017). An interview-based survey to determine the conservation status of softshell turtles (Reptilia: Trionychidae) in the Irrawaddy Dolphin Protected Area, Myanmar. *Journal of Threatened Taxa* 9(12): 10998–11008. <https://doi.org/10.11609/JoTT.3632.9.12.10998-11008>
- Poudel, S., B.R. Lamichhane, S. Bhattarai, D. Adhikari, C.P. Pokheral, T.R. Bhatt, S.R. Giri, S. Lamichhane, A. Sadaula, A. Gurung, L.P. Poudyal, U.R. Regmi & N. Subedi (2019). First photographic evidence of Fishing Cat *Prionailurus viverrinus* Bennett, 1833 and Clouded Leopard *Neofelis nebulosa* Griffith, 1821 (Carnivora: Felidae) in Parsa National Park, Nepal. *Journal of Threatened Taxa* 11(4): 13497–13501. <https://doi.org/10.11609/JoTT.4549.11.4.13497-13501>
- Rainey, H.J. & K. Kong (2010). A Fishing Cat observation from northern Cambodia. *Cat News* 52: 8–9.
- Samarasinghe, D. & D. Alwis (2017). *Crocodylus porosus* (Saltwater Crocodile). Diet. *Herpetological Review* 48(3): 630–631.
- Shepherd, C.R. & V. Nijman (2008). The Wild Cat Trade in Myanmar. TRAFFIC Southeast Asia, Petaling Jaya, Selangor, Malaysia, 24pp.
- Stohlgren, T.J., J.F. Quinn, M. Ruggiero & G.S. Waggoner (1994). Status of biotic inventories in US national parks. *Biological Conservation* 71(1): 97–106. [https://doi.org/10.1016/0006-3207\(94\)00026-M](https://doi.org/10.1016/0006-3207(94)00026-M)
- Sunquist, M. & F. Sunquist (2002). *Wild Cats of the World*. University of Chicago Press, Chicago, 452pp.
- Than Zaw, Than Myint, Saw Htun, Saw Htoo Tha Po, Kyaw Thinn Latt, Myint Maung & A.J. Lynam (2014). Status and distribution of smaller felids in Myanmar. *Cat News, Special Issue* 8: 24–30.
- Thorbjarnarson, J.B., S.G. Platt & Saw Tun Khaing (1999). Ecological reconnaissance of Meinmahla Kyun Wildlife Sanctuary and vicinity, southern Ayeyarwady Delta, Myanmar. Report to Wildlife Conservation Society, Bronx, New York, 60pp.
- Thorbjarnarson, J.B., S.G. Platt & Saw Tun Khaing (2000). A population survey of the Estuarine Crocodile in the Ayeyarwady Delta, Myanmar. *Oryx* 34(4): 317–324. <https://doi.org/10.1046/j.1365-3008.2000.00135.x>
- Webb, E.L., N.R. Jachowski, J. Phelps, D.A. Friess, M.M. Than & A.D. Ziegler (2014). Deforestation in the Ayeyarwady Delta and the conservation implications of an internationally-engaged Myanmar. *Global Environmental Change* 24: 321–333. <https://doi.org/10.1016/j.gloenvcha.2013.10.007>





PLATINUM
OPEN ACCESS



The Journal of Threatened Taxa (JoTT) is dedicated to building evidence for conservation globally by publishing peer-reviewed articles online every month at a reasonably rapid rate at www.threatenedtaxa.org. All articles published in JoTT are registered under [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/) unless otherwise mentioned. JoTT allows unrestricted use, reproduction, and distribution of articles in any medium by providing adequate credit to the author(s) and the source of publication.

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

May 2019 | Vol. 11 | No. 7 | Pages: 13815–13950

Date of Publication: 26 May 2019 (Online & Print)

DOI: 10.11609/jott.2019.11.7.13815-13950

www.threatenedtaxa.org

Articles

Cats, canines, and coexistence: dietary differentiation between the sympatric Snow Leopard and Grey Wolf in the western landscape of Nepal Himalaya

– Anil Shrestha, Kanchan Thapa, Samundra Ambuhang Subba, Maheshwar Dhakal, Bishnu Prasad Devkota, Gokarna Jung Thapa, Sheren Shrestha, Sabita Malla & Kamal Thapa, Pp. 13815–13821

Genetic diversity among the endemic barb *Barbodes tumba* (Teleostei: Cyprinidae) populations from Mindanao, Philippines

– Onaya P. Abdulmalik-Labe & Jonas P. Quilang, Pp. 13822–13832

The importance of conserving fragmented forest patches with high diversity of flowering plants in the northern Western Ghats: an example from Maharashtra, India

– Amol Kishor Kasodekar, Amol Dilip Jadhav, Rani Babanrao Bhagat, Rakesh Mahadev Pawar, Vidya Shrikant Gupta & Narendra Yeshwant Kadoo, Pp. 13833–13849

Communications

First assessment of bird diversity in the UNESCO Sheka Forest Biosphere Reserve, southwestern Ethiopia: species richness, distribution and potential for avian conservation

– Mattias Van Opstal, Bernard Oosterlynck, Million Belay, Jesse Erens & Matthias De Beenhouwer, Pp. 13850–13867

Roadkill of animals on the road passing from Kalaburagi to Chincholi, Karnataka, India

– Shankerappa Shantveerappa Hatti & Heena Mubeen, Pp. 13868–13874

***Ceriagrion chromothorax* sp. nov. (Odonata: Zygoptera:**

Coenagrionidae) from Sindhudurg, Maharashtra, India

– Shantanu Joshi & Dattaprasad Sawant, Pp. 13875–13885

The diversity and distribution of polypores (Basidiomycota: Aphyllophorales) in wet evergreen and shola forests of Silent Valley National Park, southern Western Ghats, India, with three new records

– C.K. Adarsh, K. Vidyasagar & P.N. Ganesh, Pp. 13886–13909

Short Communications

Recent photographic records of Fishing Cat *Prionailurus viverrinus* (Bennett, 1833) (Carnivora: Felidae) in the Ayeyarwady Delta of Myanmar

– Naing Lin & Steven G. Platt, Pp. 13910–13914

Rediscovery of Van Hasselt's Mouse-eared Bat *Myotis hasseltii* (Temminck, 1840) and its first genetic data from Hanoi, northern Vietnam

– Vuong Tan Tu, Satoru Arai, Fuka Kikuchi, Chu Thi Hang, Tran Anh Tuan, Gábor Csorba & Tamás Görföl, Pp. 13915–13919

Notes on the diet of adult Yellow Catfish *Aspistor luniscutis* (Pisces: Siluriformes) in northern Rio de Janeiro State, southeastern Brazil

– Ana Paula Madeira Di Beneditto & Maria Thereza Manhães Tavares, Pp. 13920–13924

Waterbirds from the mudflats of Thane Creek, Mumbai, Maharashtra, India: a review of distribution records from India

– Omkar Dilip Adhikari, Pp. 13925–13930

Moths of the superfamily Tineoidea (Insecta: Lepidoptera) from the Western Ghats, India

– Amit Katewa & Prakash Chand Pathania, Pp. 13931–13936

Winter season bloomer Hairy Bergenia *Bergenia ciliata* (Haw.) Sternb. (Saxifragales: Saxifragaceae), an important winter forage for diverse insect groups

– Aseesh Pandey, Ravindra K. Joshi & Bhawana Kapkoti Negi, Pp. 13937–13940

Notes

Kerala state bird checklist: additions during 2015 – May 2019

– Abhinand Chandran & J. Praveen, Pp. 13941–13946

What is in a name? The birthright of *Oxyopes nilgircus* Sherriffs, 1955 (Araneae: Oxyopidae)

– John T.D. Caleb, P. 13947

Book Review

Study on biological and ecological characteristics of mudskippers

– Ali Reza Radkhah & Soheil Eagderi, Pp. 13948–13950

Partner



صندوق محمد بن زايد
للمحافظة على
الكائنات الحية

The Mohamed bin Zayed
SPECIES CONSERVATION FUND

Member



Publisher & Host

