



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)

NOTE

PARASITIC ENTERITIS IN THE FREE-RANGING COMMON MYNA *ACRIDOTHERES TRISTIS* (AVES: PASSERIFORMES: STURNIDAE)

Rakesh Kumar, Aman Dev Moudgil, Sameeksha Koundal, Rajendra Damu Patil & Rajesh Kumar Asrani

26 November 2020 | Vol. 12 | No. 15 | Pages: 17168–17170

DOI: 10.11609/jott.4756.12.15.17168-17170



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>

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.

Member



Publisher & Host





Parasitic enteritis in the free-ranging Common Myna *Acridotheres tristis* (Aves: Passeriformes: Sturnidae)

Rakesh Kumar¹ , Aman Dev Moudgil² , Sameeksha Koundal³ , Rajendra Damu Patil⁴ & Rajesh Kumar Asrani⁵

^{1,3,4,5} Department of Veterinary Pathology, ² Department of Veterinary Parasitology,

DGCN College of Veterinary and Animal Sciences, CSK HP Agricultural University, Palampur, Himachal Pradesh 176062, India.

¹rkvetpath@gmail.com, ²moudgil.aman@gmail.com (corresponding author), ³sameekshakoundal@gmail.com, ⁴rdpatil02@gmail.com,

⁵asranirk@gmail.com

The Common Myna *Acridotheres tristis* is an opportunist omnivore and can be easily spotted near human localities or grazing pastures (Feare et al. 2016). The maintenance of a high level of infection in mynas is associated with their feeding habits. These birds often feed insects which are usually the intermediate hosts for many helminthic infections (Caughley & Sinclair 1994). The myna has also been found to carry protozoan parasites like *Haemoproteus* and *Plasmodium* spp. (Ishtiaq et al. 2006). Various reports of mynas spreading the zoonotic diseases to humans (bird flu and salmonellosis), asthma, dermatitis etc. are also recorded (Young 2000). This communication highlights the presence of the parasitic tapeworm, *Hymenolepis cantaniana*, in a free ranging bird, precipitating the potentiality of disease transmission to domesticated birds.

Two adult Common Myna (1 male and 1 female) were brought to the Department of Veterinary Pathology for necropsy examination from Rajot, Baijnath Tehsil, Himachal Pradesh. On detailed necropsy examination the entire small intestine was found to be stuffed with balled-up dull white coloured tapeworms along with catarrhal exudate (Image 4). The collected cestode

parasites were thin thread-like having average lengths of 1.84±0.13 cm. The proglottids of the tapeworms were collected carefully from the intestines (mainly duodenum and jejunum) of the birds, which were dorso-ventrally compressed between two slides and fixed in 10% neutral buffered formalin. After complete overnight washing, the worms were dehydrated in ascending grades of alcohol. The specimen were stained in borax carmine and then transferred to a clearing agent (cedar wood oil) and finally mounted in dextrine plasticised xylene (DPX) (Meyer & Oslen 1975).

Tissue sections of the intestine with a thickness of 5mm were collected in 10% neutral buffered formalin for histopathological investigation. The formalin fixed tissues were processed, sectioned at 4–6 micron thickness and stained with Haematoxylin and Eosin (H&E) for microscopic evaluation as per the protocol described by Luna (1968).

A thorough external examination revealed emaciated carcasses with whitish to pale conjunctival mucus membranes. The morphological characteristics of the parasites recovered from the small intestine were studied in detail for identification of the genus of the cestode parasite. The detailed observation of the scolex,

Editor: L.D. Singla, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India.

Date of publication: 26 November 2020 (online & print)

Citation: Kumar, R., A.D. Moudgil, S. Koundal, R.D. Patil & R.K. Asrani (2020). Parasitic enteritis in the free-ranging Common Myna *Acridotheres tristis* (Aves: Passeriformes: Sturnidae). *Journal of Threatened Taxa* 12(15): 17168–17170. <https://doi.org/10.11609/jott.4756.12.15.17168-17170>

Copyright: © Kumar et al. 2020. Creative Commons Attribution 4.0 International License. JoTT allows unrestricted use, reproduction, and distribution of this article in any medium by providing adequate credit to the author(s) and the source of publication.

Funding: None.

Competing interests: The authors declare no competing interests.

Acknowledgements: The authors are highly grateful to the Dean, COVAS for providing necessary facilities to carry out the study.



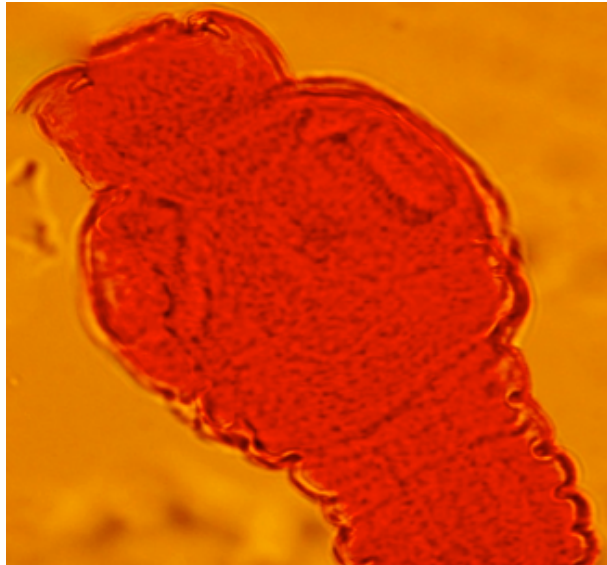


Image 1. Photomicrograph of scolex depicting armed rostellum (100X). © Moudgil, A.D.

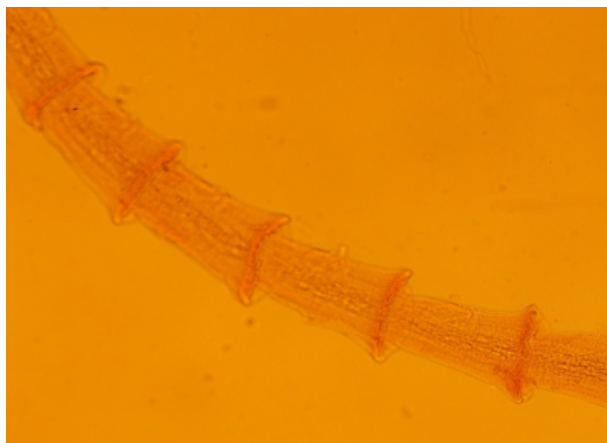


Image 2. Photomicrograph of proglottids with unilateral genital pore (100X). © Moudgil, A.D.

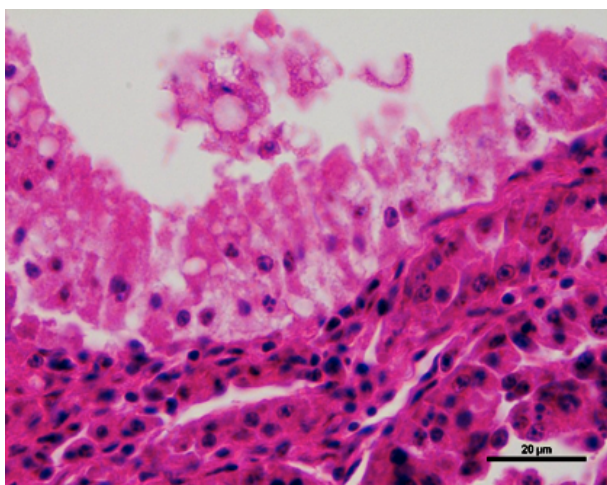


Image 3. Sloughed and necrosed enterocytes with eosinophilic catarrhal exudate in the intestine. H&E (100X). © Kumar, R.



Image 4. Incised intestine of Common Myna showing presence of tapeworm. © Kumar, R.

exhibited the presence of armed rostellum, i.e., presence of rostellar hooks (Image 1). The mean length of the cestode parasites was 1.84 ± 0.13 cm (mean \pm standard deviation) ($n=10$). The proglottids exhibited the presence of unilateral genital pores, slightly anterior to the middle of the proglottids (Image 2). The observations were depicting the parasite to be *Hymenolepis cantianiana*

and were in concordance to the findings of Demis et al. (2015). In a similar study, Ponnudurai et al. (2009) recovered tapeworms from Myna, which were later on identified as *Raillietina* species.

The histopathological examination of the intestine revealed the presence of severe congestion, necrotic cellular debris in the intestinal lumen, pyknotic changes and eosinophilic catarrhal exudate along with goblet cell hyperplasia and a few polymorphonuclear cells (Image 3). The observations are in concordance with the findings of Omer et al. (2015).

As this avian species frequently wanders around the backyard or organized poultry farms, consequently, may act as a potential source for pathogen transmission to the domesticated poultry and other birds by contaminating the feed or water with their droppings. The gross and histopathological studies revealed that severe emaciation due to catarrhal enteritis caused by *H. cantaniana* tape worms was most probably the cause of death in the Common Myna.

References

- Caughley, G. & A.R.E. Sinclair (1994). *Wildlife Ecology and Management*. Blackwell Publishing, Oxford, UK, 334pp.
- Demis, C., M. Anteneh & A. Basith (2015). Tapeworms of poultry in Ethiopia: A Review. *British Journal of Poultry Science* 4(3): 44–52. <https://doi.org/10.5829/idosi.bjps.2015.4.3.96145>
- Feare, C.J., J.V. Woude, P. Greenwell, H.A. Edwards, J.A. Taylor, C.S. Larose, P. Ahlen, J. West, W. Chadwick, S. Pandey, K. Raines, F. Garcia, J. Komdeurb & A. Groene (2016). Eradication of Common Mynas *Acridotheres tristis* from Denis Island, Seychelles. *Pest Management Science* 73(2): 295–304. <https://doi.org/10.1002/ps.4263>
- Ishtiaq, F., J.S. Beadell, A.J. Baker, A.R. Rahmani, Y.V. Jhala & R.C. Fleischer (2006). Prevalence and evolutionary relationships of haematozoan parasites in native versus introduced populations of Common Myna *Acridotheres tristis*. *Proceedings of the Royal Society B* 273: 587–594. <https://doi.org/10.1098/rspb.2005.3313>
- Luna, G. (1968). *Manual of Histological Staining Method of the Armed Forces Institute of Pathology, 3rd Edition*. New York, McGraw-Hill Book Company, xii+258pp.
- Meyer, C.M. & W.O. Oslen (1975). *Essentials of Parasitology*. Dubuque, W.M.C Brown Company Publishers, ix+303pp.
- Omer, L.T., M. Ali, A. Dyar & A. Morad (2015). Detection of parasitic infections and their pathological changes in wild pigeons in Duhok province. *Al-Qadisiyah Journal of Veterinary Medicine Sciences* 14: 2.
- Ponnudurai, G., T.J. Harikrishnan, A. Arulmozhi & N. Rani (2009). A note on helminth parasites of Common Myna (*Acridotheres tristis*) in Namakkal, Tamil Nadu. *Zoos' Print* 24(11): 2.
- Young, A. (2000). Corneal laceration with total but isolated aniridia caused by a pecking injury. *Journal of Cataract and Refractive Surgery* 26(9): 1419–1421. [https://doi.org/10.1016/S0886-3350\(00\)00365-5](https://doi.org/10.1016/S0886-3350(00)00365-5)





www.threatenedtaxa.org

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)

November 2020 | Vol. 12 | No. 15 | Pages: 17063–17170

Date of Publication: 26 November 2020 (Online & Print)

DOI: 10.11609/jott.2020.12.15.17063-17170

Articles

Status of Nahan's Partridge *Ptilopachus nahani* (Dubois, 1905) (Aves: Galliformes: Odontophoridae) in Uganda

– Eric Sande, Sisiria Akoth, Ubaldo Rutazaana & William Olupot, Pp. 17063–17076

Fish diversity in streams/rivers of Kalakad-Mundanthurai Tiger Reserve, Tamil Nadu, India

– K. Kannan & J.A. Johnson, Pp. 17077–17092

Gastrointestinal helminth and protozoan infections of wild mammals in four major national parks in Sri Lanka

– Chandima Sarani Sepalage & Rupika Subashini Rajakaruna, Pp. 17093–17104

Review

Appraising carnivore (Mammalia: Carnivora) studies in Bangladesh from 1971 to 2019 bibliographic retrieves: trends, biases, and opportunities

– Muntasir Akash & Tania Zakir, Pp. 17105–17120

Communications

Diversity of scorpions (Arachnida: Scorpiones) in Polonnaruwa Archaeological Reserve, Sri Lanka

– Kumudu B. Wijesooriya, Lakshani S. Weerasekara & Kithsiri B. Ranawana, Pp. 17121–17128

A faunistic survey of tiger beetles (Coleoptera: Carabidae: Cicindelinae) in Chakrashila Wildlife Sanctuary and adjoining riverine ecosystem in Assam, India

– Kushal Choudhury, Chandan Das & Amar Deep Soren, Pp. 17129–17137

Occurrence of the *Aporrectodea caliginosa caliginosa* (Savigny, 1826) (Annelida: Clitellata: Haplotaxida) from Kashmir Valley, Jammu & Kashmir, India

– Ishtiyak Ahmed Najjar, Anisa B. Khan & Abdul Hai, Pp. 17138–17146

Short Communications

Avian congregation sites in the Gulf of Kachchh, Gujarat, India

– Jigar D. Joshi, Sandeep B. Munjpara, Kinjal Joshi, Harshad Salvi & R.D. Kamboj, Pp. 17147–17152

Checklist of brachyuran mangrove crabs of Kerala, India

– Kurian Mathew Abraham & Apreshgi Kolothuthara Prakasan, Pp. 17153–17160

Notes

A new country record of Smooth-backed Gliding Gecko *Gekko lionotum* (Annandale, 1905) (Squamata: Gekkonidae) from Bangladesh

– M. Rashedul Kabir Bhuiyan, M. Fazle Rabbe, Mohammad Firoj Jaman, Ananda Kumar Das & Samiul Mohsanin, Pp. 17161–17164

***Amblyomma gervaisi* (Ixodida: Ixodidae: Amblyomma) infestation in a Rat Snake from northwestern Himalayan region: a case study**

– Aman D. Moudgil, Ankur Sharma, Adarsh Kumar, Amit Singla & Surender Bansal, Pp. 17165–17167

Parasitic enteritis in the free-ranging Common Myna *Acridotheres tristis* (Aves: Passeriformes: Sturnidae)

– Rakesh Kumar, Aman Dev Moudgil, Sameeksha Koundal, Rajendra Damu Patil & Rajesh Kumar Asrani, Pp. 17168–17170

Member



Publisher & Host

