

ZSI e-NEWS

The Monthly Electronic Newsletter of Zoological Survey of India



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**ANIMAL OF
THE MONTH**

Reed bush frog,
Philautus ochlandrae

Check-list of fauna of India:
Indian Embioptera (Insecta)
Indian Scelioninae (Platygastridae:
Hymenoptera: Insecta)
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From the Director's Desk

I am extremely happy that the ZSI e-NEWS is getting a wider audience. The month of April also brought new ideas and vision from the proceedings of the Annual Meeting of Senior Scientists of the department held at ZSI, Kolkata from 27th - 29th to review the targets and achievements for the financial year 2008-2009 as well as to finalise the proposed targets for 2009-2010. Field surveys conducted, faunal inventorying work carried out, publications brought out and identification and advisory services rendered during April 2009 are highlighted in this issue of the ZSI e-NEWS.

Dr. Ramakrishna

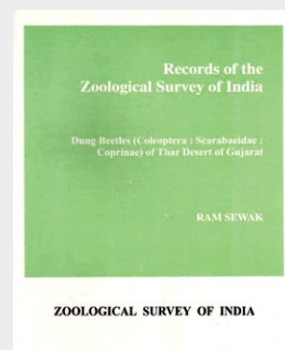
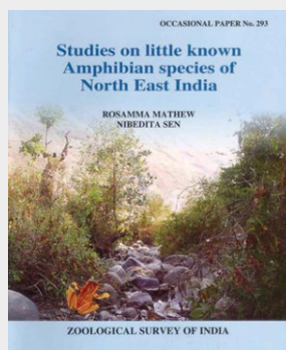
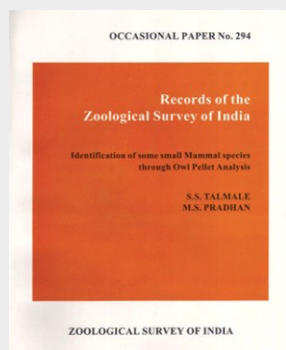
Headquarters, Kolkata

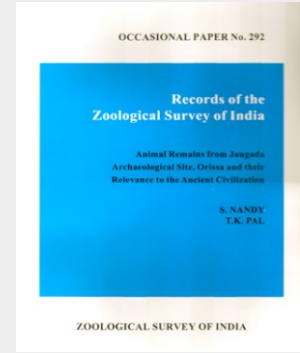
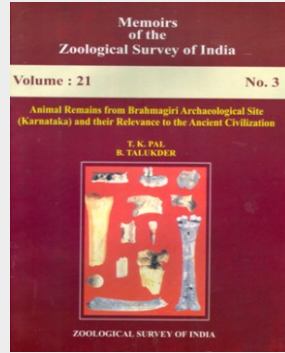
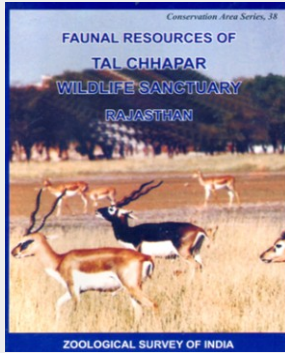
Zooarchaeological studies of the Animal remains in Brahmagiri archaeological site (Karnataka) and Jaugada archaeological site (Orissa) were carried out and the results brought out in two documents published by ZSI.

15 teams from different Sections and Divisions of the Headquarters, carried out field surveys in the States of Arunachal Pradesh, Jharkhand, Orissa, Madhya Pradesh, Uttar Pradesh, Himachal Pradesh, Maharashtra, Tamil Nadu, and West Bengal, for the exploration of faunal

resources. A new species of ant, *Lophomyrmes changlangensis* (Hymenoptera: Formicidae) has been described. Scientists from Headquarters participated in EIA studies organized by the A & N Regional Station at Port Blair from 2nd to 12th and attended the Seminar on "Global Climatic Change and Responsibility of the Student Community" on 22nd.

Three Researchers, 2 from Japan and 1 from Thailand visited the Fish Section of the Headquarters for studying the type specimens.





33 Students and 3 Faculty members from North Eastern Region visited different sections of Headquarters.

Hides of antelope, spotted deer, sambhar deer, tiger and domestic cattle were received for identification from the Regional Dy. Director, Wildlife Crime Control Bureau, Mumbai; DFO, Raipur and Sundarban Tiger Resrve; DFO, Jalpaiguri, and DFO, 24-Parganas (S), respectively.

The following faunal documents were published:

- (1) Little known amphibian species of NE India (*Occ. paper* 293) by R. Mathew and N. Sen - [ERS, ZSI, Shillong]
- (2) Identification of some small mammal species through Owl Pellet Analysis (*Occ. paper* 294) by S.S. Talmale and M. S. Pradhan - [WRS, ZSI, Pune]
- (3) Dung Beetles (Coleoptera: Scarabaeidae: Coprinae) of Gujarat (*Occ. paper* 295) by Ram Sewak- [DRS, ZSI, Jodhpur]
- (4) Fauna of Talchhapar Wildlife Sanctuary, Churu, Rajasthan (*Conservation Area Series-38*) - [DRS, ZSI, Jodhpur]
- (5) Animal remains from Brahmagiri Archaeological site (Karnataka) and their relevance to the ancient civilization (*Memoirs of the Zoological Survey of India*, Vol. 21, No. 3) by Pal, T. K. and Talukdar, B - [ZSI, Kolkata]
- (6) Animal remains from Jaugada Archaeological site, Orissa and their relevance to the ancient civilization (*Occ. paper* 292) by Nandy, S. and Pal, T. K - [ZSI, Kolkata].

In this Issue

Western Regional Station, Pune

A faunistic survey to Radhanagari WLS and Chandoli NP was conducted between 30th March and 09th April. Fish specimens received from Principal New Arts, Commerce and Science College, Parner, Ahmadnagar and insect photographs received from Freshwater Biology Station, Hyderabad were identified. A note on the ichthyofauna of Solapur District, with first report of a cyprinid fish *Rasbora caverii* (Jerdon) from Maharashtra state was published. A paper on avifauna of Pachmarhi Biosphere Reserve was also published. Two students from Ramakrishna More College, Akurdi completed M.Sc dissertation on aquatic Coleoptera and Hemiptera of Pune district, under the guidance of the scientists of the station.



Rasbora caverii (Jerdon) - first report from Maharashtra

Publications:

- (1) Jadhav, S.S and Yadav, B.E (2009). A note on the ichthyofauna of Solapur District, with first report of a cyprinid fish *Rasbora caverii* (Jerdon) from Maharashtra state, India. *Threatened Taxa* **1** (4):243-244.
- (2) Mahabal, A.S and Chandra, K. 2009. Aves: in *Fauna of Pachmarhi Biosphere Reserve*. Conservation Area Series No. 39: 45-116 (Director, Zoological Survey of India, Kolkata).

In this Issue

High Altitude Zoology Field Station, Solan

Based on the field surveys and research work conducted by the scientists of the station, three consolidated documents on the fauna of (1) Simbalbara Wildlife Sanctuary (2) Pong Dam Wetland and (3) Snow trout of River Beas and its tributaries were submitted for publication. Under ongoing programme of the faunal documentation of Pangri valley, Churdhar Wildlife Sanctuary and Ladakh, 28 species of Rhopalocera (Lepidoptera: Insecta) were identified. 2 papers on the fauna of Ladakh have



Schizothorax richardsonii from Beas river




Bar- Headed Geese at Tsomoriri, Ladakh

been published. Besides, 2 papers - one on butterflies and the other on Himalayan Marmot - have been accepted in *Records of the Zoological Survey of India* and *Uttar Pradesh Journal of Zoology*, respectively.

Publications:

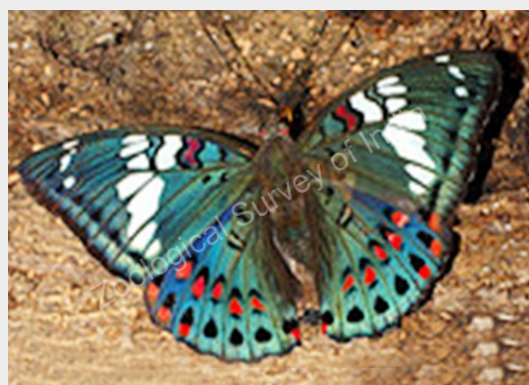
- (1) Mehta, H. S. 2009. Fauna of Indian Cold desert (Ladakh) - an Overview. *ZSI ENVIS News Letter* 15: 2-4.
- (2) Sharma, Indu and Mehta, H. S. 2009. Fishes of Ladakh. *ZSI ENVIS News Letter* 15: 13-15.

 In this Issue

Northern Regional Station, Dehra Dun

Two scientific programmes of the station were completed, viz., "The Nematodes associated with Insect pests and soil of Teak and Sal Forests, Dehra Dun (Uttarakhand), India" and "Trichotaxonomy of species of Herpestidae, Viverridae, Mustellidae, Tragulidae and Sciuridae (Microscopic and Keratin analysis)", and the research documents submitted for publication. The first document deals with an inventory and description of 81 species of nematodes, 14 of them forming new records for India and 16, new records for Uttarakhand. The second document deals with the concerned studies on 40 species of mammals. Apart from these, 13 species of Lepidoptera were identified from Kalesar National Park, Haryana and the butterfly, *Euthalia lubentina* (Cramer) recorded for the first time from the Park, a note on which was also submitted for publication. A scientist of the station attended the "Easter Conference and

New distributional record



Euthalia lubentina (Cramer)


First report from Kalesar National Park, Haryana

Annual General Meeting" of the Mammal Society, London U.K. at University of Winchester, from 17-19th, and presented a paper (both oral and poster presentation) on the topic, "Identification through primary guard hair of species from Asia (India) of the Sciuridae (Mammalia) family". Another scientist of the

station has been appointed as Associate Editor (Honorary) of an International Journal, *The Journal of Cell and Animal Biology*, and the scientist reviewed and offered comments on six papers for the Journal.

Publication:

Khanna, V. 2009. Chilopoda: Scolopendromorpha - in: *Fauna of Tamil Nadu State, State Fauna Series*, 17 (Part-1) - Published by the Director, Zoological Survey of India, Kolkata, pp. 145-148.

 In this Issue


Sunderban Field Research Station, Canning



A view of the Mangroves and Mudflats in Sunderban

A faunistic survey was undertaken in connection with the study on Taxonomy and ecology of the

Brachyuran crabs of Sunderban, covering Bakkhali and Gangasagar including Jambudweep, Pathibonia, Kalisthan and Mousomidweep areas from 18th to 27th (Pre monsoon period). 56 examples of Brachyuran crabs including 3 other groups of animals were collected during this survey. Six examples of fishes comprising of 3 species and 2 examples of Amphibia comprising of 2 species were identified. One manuscript titled "An account of Amphibian and Reptilian fauna of Sunderban" has been revised during the month.

 In this Issue

Desert Regional Station, Jodhpur

Scientists of the station identified 5 species of Odonata and 9 species of Coleoptera from Rajasthan besides 2 species of Nematodes from Gujarat. A research document on the Faunal Exploration of Kumbhalgarh Wildlife Sanctuary, Udaipur, Rajasthan and a Pictorial Hand book on Nematodes of Rajasthan were submitted for publication. The station's museum was visited by 24 visitors during the month. 112 entries pertaining to the books in the station's library were made employing the software, *e-granthalaya*. 104 entries of identified fauna were made in the faunal Database maintained at the station.

Publications:


- (1) Bohra, P. 2009. *Faunal Exploration of Talchhappar Wildlife Sanctuary. Conservation Area Series*. Published by Director, ZSI, Kolkata. 38: 66pp.
- (2) Sharma, G. 2009. Studies and status of damselflies and dragonflies (Odonata: Insecta) of Arid and Semi-Arid regions of India. *Hexapoda*. 16(1): 36-39.

- (3) Sewak, R. 2009. Dung Beetles (Insecta: Coleoptera: Scarabaeidae: Coprinae) of Thar Desert of Gujarat. *Rec. zool. Surv. India*, Occ. Paper. Published by Director, ZSI, Kolkata. 295: 1-48.



Indian Peafowl (*Pavo cristatus* Linn.)
at Kumbhalgarh Wildlife Sanctuary




Wild Boar (*Sus scrofa* Linn.)
at Sariska Tiger Reserve, Alwar  In this Issue

Southern Regional Station, Chennai

3,218 specimens of various faunal groups collected from the Kanyakumari Wildlife Sanctuary (surveyed during March- April, 2009), were added to the Collections of the Station. Two species of *Phlebotomine* sand flies collected from the Kalrayan Hills, Eastern Ghats, 6 species of grasshoppers from Karnataka, 5 species of cockroaches from Tamil Nadu, 4 species of reptiles from Kanyakumari Wildlife Sanctuary were identified by the scientists of the station. A senior scientist of the station delivered a lecture on 'Biodiversity Profiles of India, Hotspots, Conservation areas and Environmental Laws' at the Asan Memorial Science College, Chennai.




Hemiphyllodactylus aurantiacus (Beddome),
an endemic South Indian Gecko collected from
Tirupathur range, Yelagiri Hills

 In this Issue

Marine Biological Station, Chennai

During the month, 4 sponge specimens belonging to 3 species and 68 echinoderms belonging to 4 species were identified and registered out of the material collected from the Gulf of Mannar Biosphere Reserve, Tamil Nadu. Further, 224 fishes from southern Eastern Ghats


were identified as belonging to 6 species. One research paper was reviewed. Three identification services were rendered. 134 tourists visited the marine aquarium maintained at the station during the month.

 In this Issue

Arunachal Pradesh Field Station, Itanagar

Information related to birds and mammals of Itanagar Wildlife Sanctuary has been compiled. Faunal material already deposited in the museum of the station has been identified. Six

research articles were received from the Akdeniz University, Turkey, Acoustical Society of America and the Editor, *Journal of the Bombay Natural History Society*, for reviewing.

 In this Issue

Estuarine Biological Station, Gopalpur-on-Sea

14 fish samples collected from the Cauveri Estuary, Tamil Nadu have been studied and

identified as 5 species belonging to 4 families. 8 examples of crabs under 3 species belonging to 2




Estuarine crocodile, *Crocodilus porosus*
from Bhitarkanika Wildlife Sanctuary



Hatchling of Olive ridley turtle,
Lepidochelys olivacea from Gopalpur coast

families, 4 examples of prawns under 2 species belonging to one family and 6 examples of aquatic bugs under 3 genera viz. *Diplonychus* (Family: Belostomatidae), *Aquarius* (Family: Gerridae) and *Ranatra* (Family: Nepidae) were identified from the collections of Brahmani-

Baitarani Estuary, Orissa. The aquatic bug genus *Aquarius* is a new record for Orissa. Advisory services and literature facilities were provided to research scholars of the Dept. of Life Sciences, Manipur University. During the month, 19 visitors paid their visits to the museum.

 In this Issue

Eastern Regional Station, Shillong

11 New Taxa of Amphibia from North-east India have been described and the information published. In addition, a paper on the richness, abundance and ecology of Micro-Crustacea (Branchiopoda) of Deepor beel (a Ramsar site) in Assam has been communicated. During the month, 5 species of Rotifera (4 genera, 4 families & 2 orders) and 5 species of Cladocera (5 genera, 4 families & 2 orders) from Deepor beel, Kamrup district, Assam, and 3 species of Rotifera (3 genera, 3 families & 2 orders) and 4 species of Cladocera (4 genera, 4 families & 2 orders) from

Nokrek Biosphere Reserve, Garo Hills, Meghalaya were identified, registered and added to the National Zoological Collection of the station.

Publications:

- (1) Rosamma Mathew and Nibedita Sen 2009. *Studies on little known Amphibian species of North East India. Rec. zool. Surv. India. Occ. Paper No. 293: 1-64 + 23 Plates* (Published by the Director, Zoological Survey of India, Kolkata).

NEW TAXA OF AMPHIBIA (ANURA: RHACOPHORIDAE) FROM N.E.INDIA



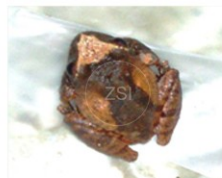
CHIRIXALUS SENAPATIENSIS
MATHEW & SEN



POLYPEDATES ASSAMENSIS
MATHEW & SEN



POLYPEDATES SUBANSIRIENSIS
MATHEW & SEN



PHILAUTUS MANIPURENSIS
MATHEW & SEN



RHACOPHORUS SUBANSIRIENSIS MATHEW & SEN

NEW TAXA OF AMPHIBIA (ANURA: BUFONIDAE) FROM N.E.INDIA



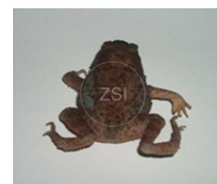
BUFO KIPHIRENSIS MATHEW & SEN



B.MAMITENSIS MATHEW & SEN



B.MANIPURENSIS MATHEW & SEN




B.MIZORAMENSIS MATHEW & SEN



B.NAGALANDENSIS MATHEW & SEN




B.WOKHAENSIS MATHEW & SEN

 In this Issue

Freshwater Biological Station, Hyderabad

A research document on the faunal resources of Wyra Lake dealing with Rotifera, Cladocera, prawns and crabs, aquatic Insects (Hemiptera, Coleoptera & Odonata), Mollusca, Pisces, Herpetofauna (Amphibia & Reptilia) and Aves has been submitted to the Publication Division.

Identification of Aquatic Insects (Hemiptera and Coleoptera) collected from the lakes in and around Hyderabad is in progress. Studies on major groups of fauna in Kolleru Lake, Andhra Pradesh along with the associated birds are in progress.

 In this Issue

Marine Aquarium & Research Centre, Digha

An average of 240 visitors per day visited the aquarium during the month. 128 live specimens of a variety of catfishes, puffers, snakes, sea anemones and star fishes were added to the aquarium. Chief attraction during the month was the Blue Surgeonfish / Tang (*Acanthurus* sp.) and large crabs of different varieties. Apart from the live animals procured for the aquarium, about 178 examples of bivalves, gastropods,




Common crab (*Scylla serrata*)



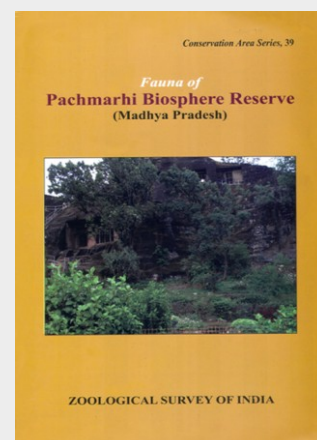
Blue Surgeonfish / Tang (*Acanthurus* sp.)

crabs, shrimps and cnidarians were collected through local surveys. Efforts were made to sort out the old collections of the Centre for identification & data entry. Advisory services were rendered to various groups from Universities, Colleges & Schools who visited the aquarium during the month. A scientist of the Centre acted as Judge in various competitions conducted on the World Earth Day Celebration organized at Ministry of Earth Science, Science Centre, Digha.

 In this Issue


Central Regional Station, Jabalpur

A document entitled '*Fauna of Pachmarhi Biosphere Reserve, Madhya Pradesh*' was published, containing data on 825 species of 16 animal groups. One Occasional paper entitled '*Faunal Diversity of Narmada Basin in Madhya Pradesh*' has been submitted for publication, which deals with an inventory of 2360 species belonging to 39 animal groups. A document on '*Fauna of Tamilnadu*' under the State Fauna Series was brought out by the Southern Regional Station, Chennai, where in 10 papers were contributed by the Scientists of the station. A *checklist of Indian Embioptera (Insecta)* has also been prepared. 3 species each of Cladocera and Rotifera were identified during the month.



Publications:

- (1) Chandra, K. and Sidhu, A. K. 2009. Insects of Ladakh, ZSI ENVIS Newsletter, Vol.15 (1&2): 5-10.
- (2) Gupta, S.K. and Chandra, K. 2009. Orthoptera of Madhav National Park, Shivpuri, Madhya Pradesh, India. *Uttar Pradesh J. Zool.* 29 (1): 79-89.
- (3) Editor-Director. 2008 (published in 2009). *Fauna of Pachmarhi Biosphere Reserve, Conservation Area Series*, 39: 1-380. (Published by the Director, Zoological Survey of India, Kolkata: Co-ordinator: Kailash Chandra).

 In this Issue

Gangetic Plains Regional Station, Patna

One extensive survey was undertaken in a stretch of 207 kms in river Gandak, a tributary of Ganga for assessing the population of Gangetic Dolphin (*Platanista gangetica gangetica*) and 204 individuals of the species were encountered during the survey. 10 species of Moths (Lepidoptera: Insecta) under 10 genera from Dalma Wildlife Sanctuary, Jharkhand; 8 species of fishes under 5 genera from river Subernarekha, Jharkhand and 3 species of chalcids (Hymenoptera) under 3 genera from Bihar (which included a species collected for the first time from the state) were identified. One species of Parasitic Hymenoptera (Chalcidoidea

:Torymidae) viz. *Podagrion charybdis* Fernando has been reported for the first time from India (Orissa), subsequent to its original description in 1957 (from Sri Lanka) with the first record of its host, parasitising the ootheca of the Praying mantis, *Tenodera fasciata* (Olivier).

Publication:

P. M. Sureshan. 2009. *Podagrion charybdis* Fernando (Hymenoptera: Chalcidoidea: Torymidae) parasitic on ootheca of *Tenodera fasciata* (Olivier) (Insecta: Mantodea): first record from India and redescription. *Journal of Threatened Taxa* 1(4): 234-235.


New distributional records



Podagrion charybdis Fernando (Insecta: Hymenoptera: Torymidae), first record from India (Orissa)



Schizocephala bicornis (Linnaeus) (Insecta: Mantodea) first record from Bihar

 In this Issue

Western Ghats Field Research Station, Kozhikode (Calicut)


A collection of specimens brought from the recent survey in Bhadra Wildlife Sanctuary, Karnataka was identified into 12 species of Odonata, 4 species of Lepidoptera, 5 species of Amphibia and 7 species of fishes. 150 specimens of parasitic hymenoptera were examined and segregated into different genera/species for further study. A species under the rare genus *Tanaodytes* Masner (Platygastridae: Hymenoptera) is being described as new to science. Updated the station's Data Base of identified specimens (Vertebrata and Invertebrata), with 4180 entries. 3 research papers were published and two faunal checklists [Checklist of Scelioninae (Platygastroidea: Hymenoptera) and annotated checklist of Birds of Ladakh] were finalised. Identification service was rendered to a student of Calicut University for his Ph.D work on "Aquatic Insects of Bharathapuzha, Kerala". Reviewed four research papers on Fishes, Hymenoptera and Odonata for the departmental journal and

advise regarding their press-worthiness communicated. During the month, 366 visitors paid their visits to the station's museum.

A video on *Philautus ochlandrae* (Amphibia: Anura: Rhacophoridae - species described by the scientists of ZSI, Calicut in collaboration with scientists of CES/IISC, Bangalore) recorded in field is hyperlinked with the departmental website www.zsi.gov.in and a write up on the species is provided under the section ANIMAL OF THE MONTH, below.

Publications:

- (1) Emiliyamma, K.G. 2009. Insecta: Odonata. *in: State Fauna Series: Fauna of Tamilnadu*, 35- 40.
- (2) Muhamed Jafer Palot and C. Radhakrishnan, 2009. Insecta: Lepidoptera: Rhopalocera. *in: State Fauna Series: Fauna of Tamilnadu*, 125-136.
- (3) Muhamed Jafer Palot, 2009. Chola Naikar Tribal Names for birds of Nilambur forests, Malappuram District, Kerala. *Malabar Trogon*, 6(3):19.

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ANIMAL OF THE MONTH

REED BUSH FROG *Philautus ochlandrae*



Kingdom : Animalia
Phylum : Chordata
Class : Amphibia
Order : Anura
Family : Rhacophoridae

Philautus ochlandrae is a recent addition to the list of frogs from Western Ghats. It was discovered in April 2007, from Kakkayam (Kozhikode), Kerala, at the foothills of the Western Ghats.

The members of *Philautus* group of frogs are generally known as bush frogs, due to their arboreal mode of life and habitat preferences of small bushes. Genus *Philautus* is best known for their direct development (endotrophic mode), which means young ones develop inside the eggs and emerge out as tiny froglets, bypassing the usual tadpole stage.

Philautus ochlandrae is one such small bush frog, measuring 22.1mm to 25.6mm. Its body colour is fleshy brown with two lateral golden yellow bands from upper eyelid to the posterior part of the flanks. Ventral part of the body is granular

and uniform cream in colour. Eyes are beautifully coloured, with a horizontal black pupil, which is surrounded by golden yellow, dentition-like marks interspersed with black.

This frog was discovered from reed brakes (*Ochlandra setigera*) in the vicinity of the Kakkayam reservoir, Kozhikode (Calicut) District in Kerala. A male was heard calling from the culm (internode region) of a reed, which led to the discovery of the frog. By splitting open the culm, a pair of frogs was spotted, which on detailed study, revealed to be a species till then unknown to science. Later the call pattern was recorded and analysed. The call has a short four pulse shriek 'shreaaw' note and a long 27-73 pulse 'tink tink tink tink.....' notes, which can be heard at a close proximity. Male frogs of this group possess a median subgular vocal sac with a pair of openings at the base of the lower jaw and make calls in the evening hours of the monsoon season, after the showers.


The frogs enter the reed through the cavities/slits on it. They prefer to live inside live reeds only. Their preference to such a microhabitat may be an indication of their

requirement of high moisture for survival, especially for their early developmental stages. In another instance, a clutch of six eggs was seen attached to the upper nodal part inside the culm, along with two adult frogs, a male and a female. A possibility of parental care cannot be ruled out, though the fact as such is yet to be ascertained.

Kakkayam, the type locality of this species is at the foot hills of Western Ghats, where tropical wet evergreen forests still exist. An issue of great concern here today is the increased human interference and over exploitation of the fragile habitats as a result of which, not only many such species of frogs, but also other life forms vanish before their very existence is detected and documented.

Reference:

Kotambylu Vasudeva Gururaja, K. P. Dinesh, Muhamed Jafer Palot, C. Radhakrishnan and T. V. Ramachandra. 2007. A new species of *Philautus* Gistel (Amphibia: Anura: Rhacophoridae) from southern Western Ghats, India. *Zootaxa*, 1621:1-16.

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