

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 3008
TO BE ANSWERED ON 06.08.2021

Biodiversity Digital Sequence Information

3008. SHRI PRATAPRAO JADHAV:
SHRI SHRIRANG APPA BARNE:
SHRI MANOJ TIWARI:
SHRI BIDYUT BARAN MAHATO:
SHRI SUDHEER GUPTA:
SHRI CHANDRA SEKHAR SAHU:
SHRI SANJAY SADASHIVRAO MANDLIK:
SHRI SUBRAT PATHAK:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether Zoological Survey of India (ZSI) has signed any Memorandum of Understanding with not-for-profit organizations/universities for strengthening of Biodiversity Digital Sequence Information and if so, the details thereof;
- (b) whether ZSI has been enriching the information on DNA barcodes and solving taxonomic queries in the country and if so, the details thereof;
- (c) the details of the funds allocated, released and utilized by ZSI during each of the last three years and the current year;
- (d) whether ZSI has been facing many challenges while performing their mandates during the period of COVID-19 lockdown; and
- (e) if so, the details thereof and the corrective/remedial action taken by the Government in this regard?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI ASHWINI KUMAR CHOUBEY)

- (a) Yes, Zoological Survey of India (ZSI) under Ministry of Environment, Forest and Climate Change has signed a Memorandum of Understanding (MoU) with International Barcode of Life (iBOL) Corporation, Canada in June 2020 for strengthening of Biodiversity Digital Sequence Information.
- (b) Yes, ZSI has been enriching the information on DNA barcodes and solving taxonomic queries in the country. ZSI has generated 7,186 DNA barcodes as on 31st March 2021 which are available in the public domain 'The Barcode of Life Data System (BOLD)'.

ZSI has also contributed over 1000 sequences to National Centre for Biotechnology information (NCBI) as of March 2021. Further, ZSI through its DNA barcoding and generating digital sequences information has solved many taxonomic disparities. ZSI identified the existence of two phylogenetic species of red panda, up-scaling pangolin conservation, allopatric speciation in Himalayan ibex among others. It has also validated two Mahseer fishes, produced world's largest DNA barcode library for thrips (insecta), India's largest DNA barcode library for spiders, provided DNA Barcoding evidence for invasive Pest thrips, *Thripsparvispinus* (Thripidae: Thysanoptera), from India, revealed DNA barcode evidence for host associated genetic diversity of 'tea Mosquito Bug' *Helopeltistheivora* (Miridae: Heteroptera) from India etc.

(c) The details of funds allocated, released and utilised during the past three years and the current year in ZSI are as under:

Financial Year	B.E. (in crores)	R.E. (in crores)	Utilised fund (in crores)
2018-19	66.54	67.80	67.30
2019-20	72.00	71.64	71.43
2020-21	72.00	60.30	60.12
2021-22	67.00	-	22.46 (as on 15.07.2021)

(d) & (e) Yes. Due to curtailment of funds, activities under the primary and secondary objectives of ZSI have suffered, especially field surveys for faunal diversity and status surveys of threatened species as well as training and capacity building activities including molecular systematics work.

However, in spite of the pandemic, following the Covid protocol, ZSI has initiated field surveys for the year 2021-22. More than 20 field surveys have been carried out and faunal collections have been made from eight Protected Areas of the country. As part of training and capacity building, 10 JRFs have been recruited recently during May 2021, exclusively to train them through working in various research programmes of ZSI.
