

## Application Form

1. Full Name (In all Capitals)
2. Date of Birth:
3. Gender :
4. Present Employment details:
5. Full contact address with email:
6. Contact phone number :
7. Academic records (from graduate onwards):  
(Degree, University/Institution, Year of Passing, Subjects)
8. Details of publications (3 maximum)  
(this information will not influence selection for the course):
9. Statement of purpose: Why do you wish to attend the training?  
(250 words maximum)
10. If you are holding a permanent position in an organisation, does your organisation have “no objection” to your participation in the training?
11. Provide name and contact details of two referees:

Paste your  
passport  
size photo

I hereby declare that the above information provided by me in the application is true. I agree to the terms and conditions of the committee for selection and participation in the training at Zoological Survey of India.

Signature with Date

Application deadline: **March 11, 2018**

Application may be sent to: **cdtzi.training@gmail.com**

Number of seats: **10**

Course Fee: **There is no course fee however the participants have to arrange for their travel, boarding and lodging.**

### **For Further Correspondence**

Coordinators

**Dr. Vikas Kumar**, Scientist-D & Officer-in-charge, PI AICOPTAX Project  
Centre for DNA Taxonomy,  
vikaszsi77@gmail.com



Ministry of Environment Forest  
and Climate Change



सत्यमेव जयते



## **Zoological Survey of India** Ministry of Environment Forest and Climate Change Government of India

### Hands on Training on “**Taxonomy of Thysanoptera (Insecta)**” March 28-29, 2018



*Loyolaia indica* Anan.

Organized by  
Centre for DNA Taxonomy, Molecular Systematics Division  
Zoological Survey of India, Kolkata  
Ministry of Environment Forest and Climate Change  
Under the AICOPTAX Project  
“Taxonomic Studies on the Tubulifera (Insecta: Thysanoptera) of India”

## Prelude

Members of the insect Order Thysanoptera are commonly called thrips. Thrips are one of the major sucking pests of many agricultural crops and nearly 6000 species are currently described from world with about 700 from India. About 60 species of thrips have economic importance to agricultural and horticultural crops, and cause crop damage either by direct feeding or by transmission of plant pathogenic tospoviruses as vectors. Globally 15 species of thrips in subfamily Thripinae (family Thripidae) are reported as vectors of tospoviruses and out of this six species are reported as vectors of tospoviruses from India.

Further, Correct and timely identification of thrips pest & vectors species is an important factor in the successful management of tospoviruses. Morphological identification of nymphs and adults of thrips is often difficult as they show high degree of similarity, polymorphism. On the other hand, molecular identification is not limited by polymorphism, sex and stage of development of the target species and development of suitable markers will also help a non-specialist to identify a given species. In addition to the above molecular studies could also elucidate prevalence of biotypes and biotype associated strain variations in tospoviruses, if any.

This “Hands on Training on Taxonomy of Thysanoptera” will provide an opportunity to learn the basics of thrips taxonomy and DNA barcoding methods for correct and precise identification of thrips taxa. The training include theory, lab procedures, and data analysis.

Applications are invited from early to mid-career researchers in universities, colleges, and research institutes, postdoctoral fellows, Ph.D. Students and government officials in India.

**Chief Guest** Additional Secretary, MoEF&CC, New Delhi

**Guest of Honour**  
Prof. (Retd.) J. S. Bhatti, New Delhi  
Dr. Vijay Veer, Dehradun  
Dr. Madhumita Biswas Advisor, MoEF&CC, New Delhi

**Convener** Dr. Kailash Chandra, Director, ZSI HQ, Kolkata

**Coordinator** Dr. Vikas Kumar, Scientist D, ZSI HQ, Kolkata

**Resource Persons**  
Dr. Vikas Kumar, ZSI HQ, Kolkata  
Dr. Kaomud Tyagi, ZSI HQ, Kolkata

## Course Contents

- ❖ Basics of Thysanoptera Taxonomy
- ❖ Collection, Preservation, and mounting techniques
- ❖ Identification of thrips taxa
- ❖ Identification keys to the species
- ❖ Molecular methods for thrips species identification

Interested candidates may send their application through email ([cdtzi.training@gmail.com](mailto:cdtzi.training@gmail.com)) in the prescribed format along with a covering letter addressed to the Director, Zoological Survey of India, Prani Vigyan Bhawan, M Block, New Alipore, Kolkata-700 053, West Bengal, India on or before application deadline (**March 11, 2018**). Selected candidates will be informed by email.