

# DRAGONFLY DIVERSITY & CONSERVATION IN TOEBAY RONGCHHU WATERSHED IN DUNAKHA, BHUTAN

## IMPORTANCE OF DRAGONFLIES

- important component of healthy ecosystem
- indicators for ecosystem bio-monitoring
- natural predator for various crop pests
- larva eaten in some parts of the world
- watched by tourists as hobby and has potential for ecotourism.

## DRAGONFLY DIVERSITY

Out of 14 families, 53 genus and 75 species listed for Bhutan specimens belonging to 12 families were collected in either as adult or larva. Libellulidae family had 6 genus and 8 confirmed species of adult, while families Calopterygidae and Coenagrionidae had 2 genus

with 2 species each. Most significant finding was the presence of *Epiophlebia laidlawi*, a threatened species in two of the streams within the study area. Checklist of updated dragonfly species within the study area will be published in relevant journal at later time.



*Crocothemis s. servilla* emerging from larva at Baritsho

## HABITAT DIVERSITY IN TOEBAY RONGCHHU WATERSHED

roadside ditches, irrigation channels, forested streams, ponds, paddy fields



Paddy field in Chasagang



Lower reach of Toebay Rongchhu



Waterfall in Dorokna stream



Baritsho in Royal Botanic Garden, Lamperi

## THREATS TO HABITAT

Water abstraction for different uses, land conversion, constructions of houses along stream sites, road widening, logging, waste disposal along stream banks and into the streams, grazing, other anthropogenic activities like fern collection from riparian zones



Solid waste disposed off the roadside in Thinleygang



Water abstraction for drinking



Debris washed down from road widening at Dochula along Dorokna stream



Trail formed by logging in Menchuna roadside

## CONSERVATION NEEDS

- research in baseline data gathering for dragonfly diversity
- recognize conservation of dragonfly and threats to it by stakeholders
- educate the general public on importance of conserving dragonfly diversity
- consorted efforts from different sectors of government and other institutes like research institutes within the country

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