

Online Profile

## *Coeliccia membranipes*

(Threadtail Damselfly)

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## CONSERVATION STATUS

### IUCN RedList

Least Concern (2018)

### CITES

This species is not listed in the CITES Appendices

### Government of Indonesia

Not Protected

## OVERALL DISTRIBUTION

Indonesia (Java, Sumatera)

## OVERVIEW

*Coeliccia membranipes* inhabits aquatic habitats with diverse vegetation and can survive in low temperatures and high humidity. *C. membranipes* serves as an indicator of environmental quality and can be utilized as a biological control agent, a predator. The potential of *C. membranipes* as a biological control agent can provide benefits, such as reducing the use of pesticides to control pests.

## Citation

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## IDENTITY

### Scientific Name

*Coeliccia membranipes*

### Synonym

*Platycnemis membranipes* Rambur

*Trichocnemis silenta* Hagen

### Common Name (Indonesia)

Capung Jarum Hutan

### Indonesia Local Name

Capung Rembes (Sunda)

## CLASSIFICATION

Kingdom	:	Animalia
Phylum	:	Arthropoda
Class	:	Insecta
Order	:	Odonata
Family	:	Platycnemididae
Genus	:	<i>Coeliccia</i>
Species	:	<i>Coeliccia membranipes</i>

## DESCRIPTION

*Coeliccia membranipes* has a total body length of approximately 4.5 cm, with a wing length of about 2.5 cm, a thorax length of 0.5 cm, a pronotum length of 0.1 cm, and an abdominal length of approximately 3.6 cm. The male has black upper eyes and bluish lower eyes, short antennae, and strong mandibulate mouthparts for capturing prey. The thorax is blue in males and yellow in females, marked with parallel black lines that create an alternating color pattern. The abdomen is long and slender, consisting of ten segments dominated by black, with S1 blue, S2 black–blue, S9 blue with a small amount of black, and S10 entirely blue; the tip of the male abdomen is blue, while the female's is yellow (Setiyono et al. 2017). Female individuals share similar general morphology with males, but the thorax and part of the legs are yellow (Pamungkas 2016). The wings are dark transparent with a black pterostigma and are characteristically narrow with slightly open venation (Susanto and Zulaikha 2021).

## ECOLOGY AND HABITAT

*Coeliccia membranipes* can be found in flowing and stagnant water habitats with abundant vegetation, both open and closed canopies. *C. membranipes* can survive at very low air temperatures of 23°C and maximum humidity of 90.2% (Susanto et al. 2020). The habitat provides shelter, egg laying substrate, and optimal food sources for the larval and imago stages.

## DISTRIBUTION

### Distribution Region

Java Island, Sumatra Island

### Distribution Type

Endemic in Sundaland (Java and Sumatera bioregion)

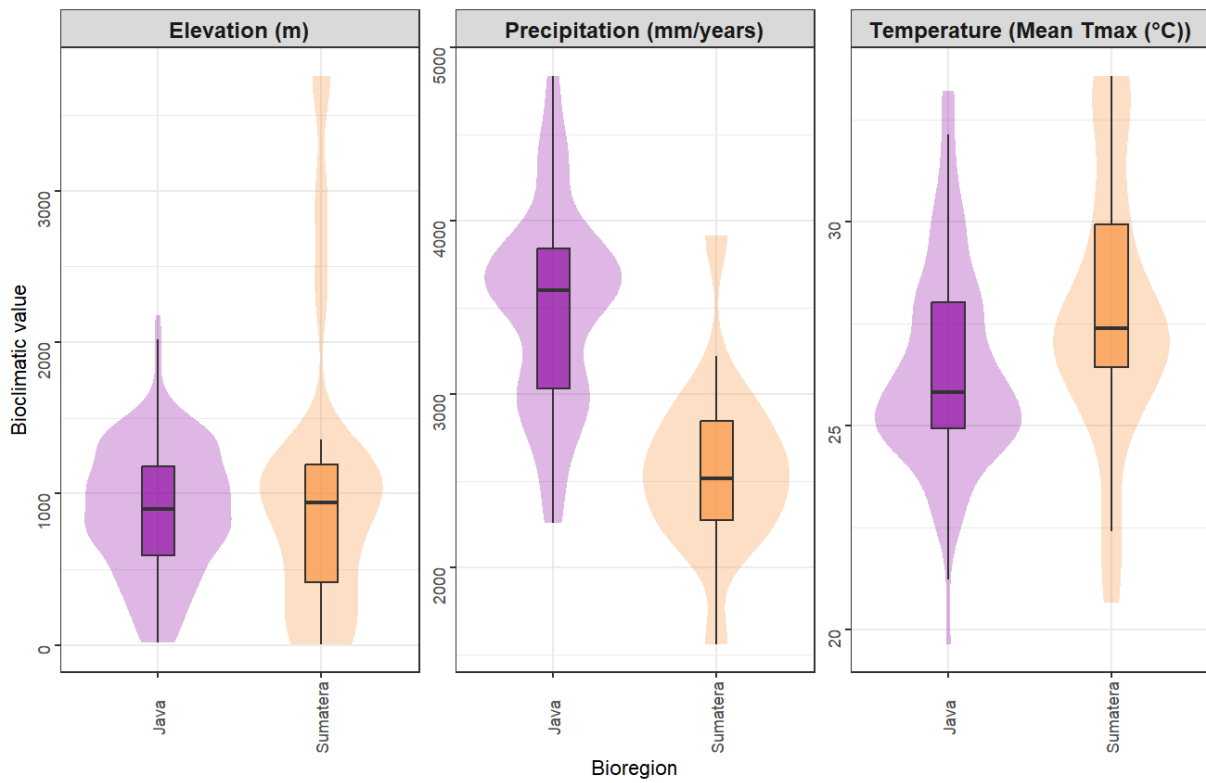
## Distribution Map



**Figure 1.** Distribution map *Coelliccia membranipes* in Indonesia

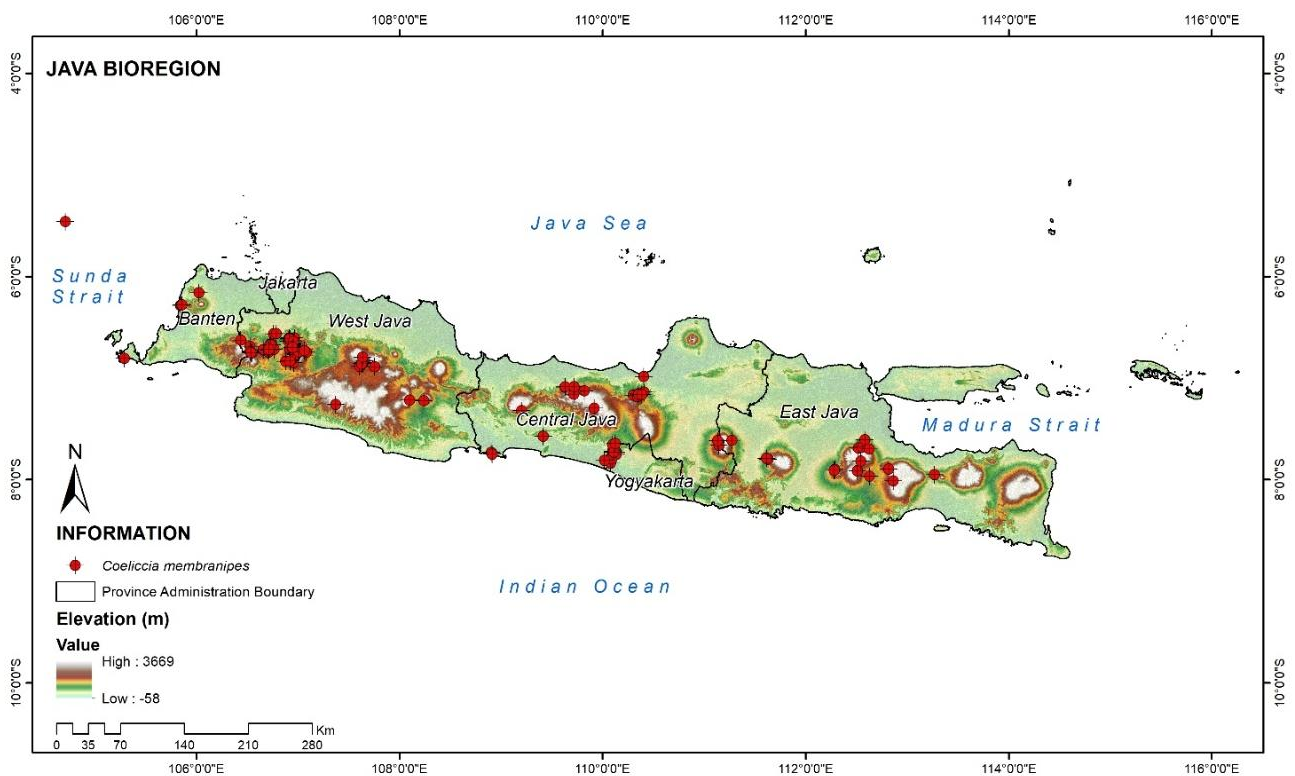
## Statistical Overview of Distribution

Indicator	Bioregion	Value (total, mean $\pm$ SD, range)	Unit
Distribution (GBIF on 2025)	Sumatera	48	Record
	Jawa	172	Record
Bioclimatic – Elevation (DEM SRTM)	Sumatera	1071,58 $\pm$ 975,65 (6 – 3759)	Mean Sea Level (m)
	Jawa	887,5 $\pm$ 423,08 (13 – 2174)	Mean Sea Level (m)
Bioclimatic – Precipitation (CHIRPS UCSB) (2015-2025)	Sumatera	2582 $\pm$ 504,49 (1561,18 – 3913,82)	mm / years
	Jawa	3496,49 $\pm$ 569,28 (2256,5 – 4836,48)	mm / years
Bioclimatic – Temperature (CHIRTS UCSB) (2015-2025)	Sumatera	27,73 $\pm$ 3,25 (20,67 – 33,58)	Mean Tmax (°C)
	Jawa	26,40 $\pm$ 2,50 (19,65 – 33,20)	Mean Tmax (°C)

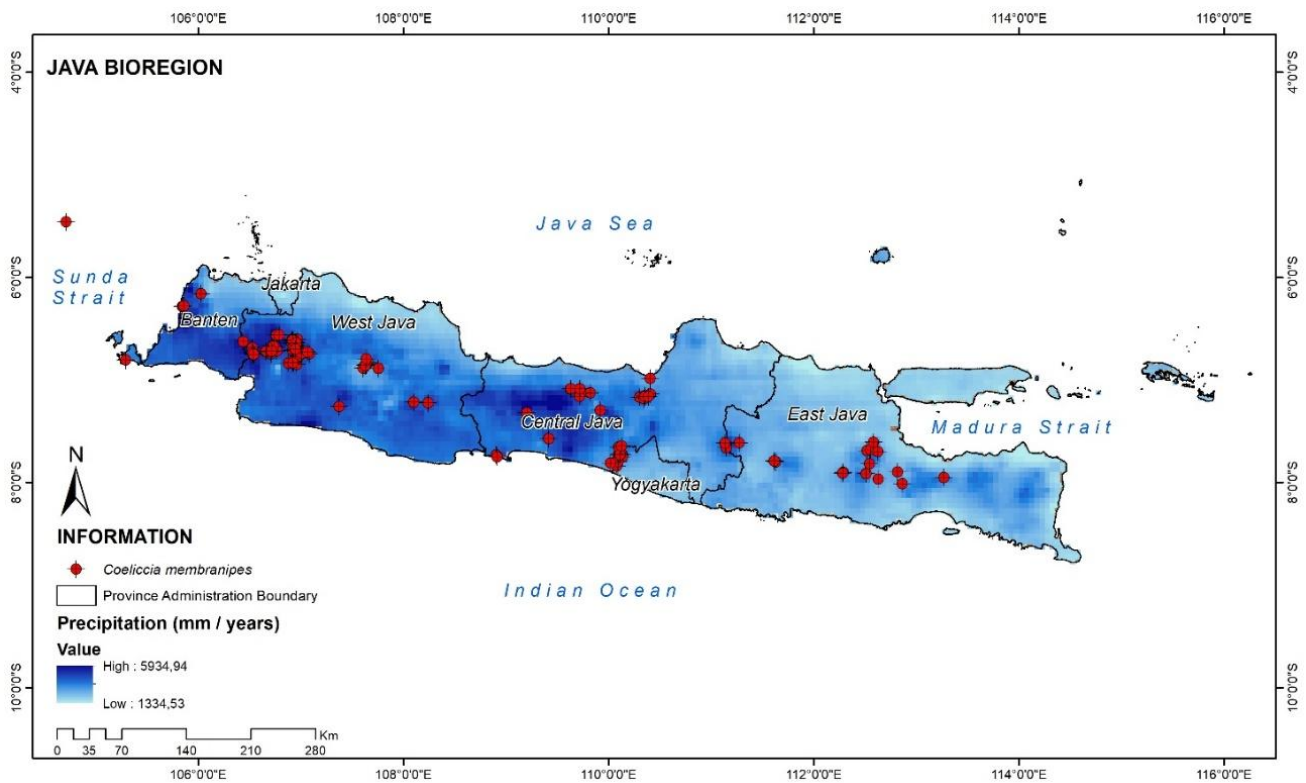


**Figure 2.** Statistical of bioclimatic characteristics

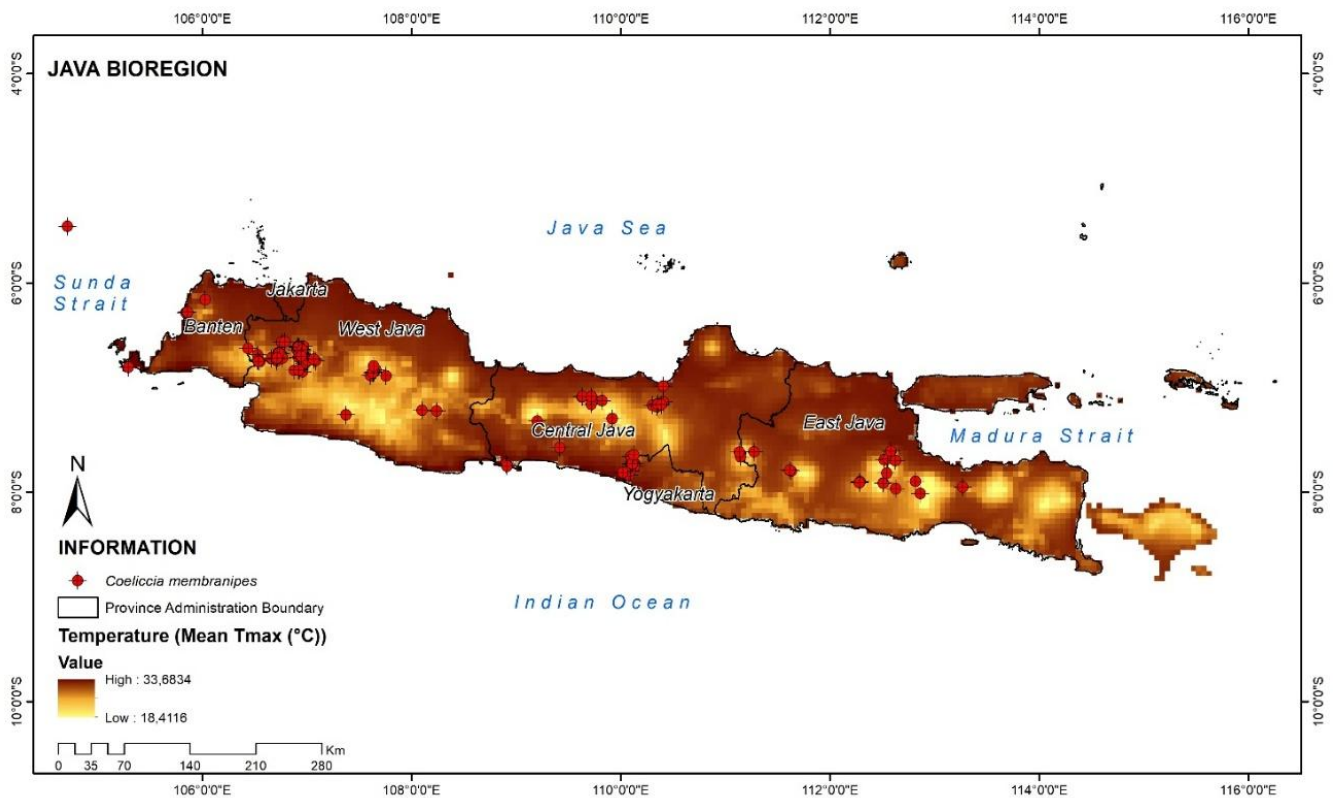
### Distribution Map Based on Indonesia Bioregion – Java



**Figure 3.** Distribution map *Coeliccia membranipes* in Java bioregion by elevation gradient



**Figure 4.** Distribution map of *Coeliccia membranipes* in Java bioregion by precipitation gradient



**Figure 5.** Distribution map of *Coeliccia membranipes* in Java bioregion by temperature gradient

### Distribution Map Based on Indonesia Bioregion – Sumatera

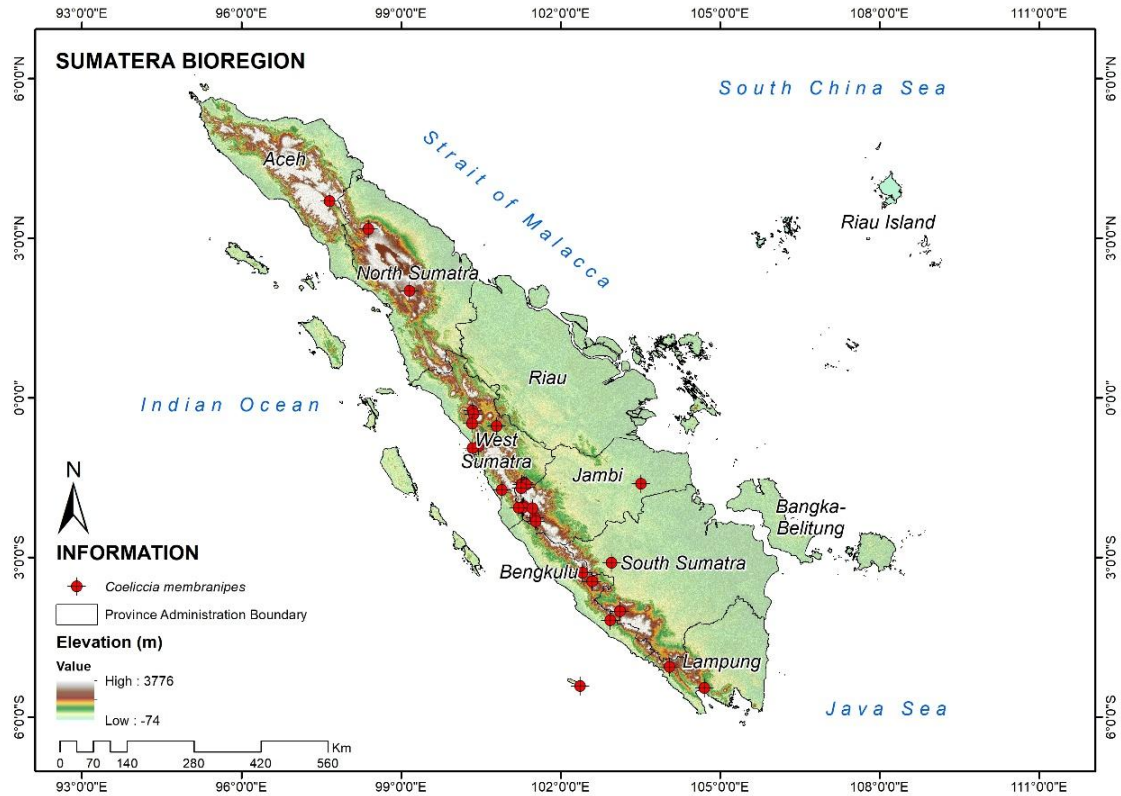


Figure 6. Distribution map *Coeliccia membranipes* in Sumatera bioregion by elevation gradient

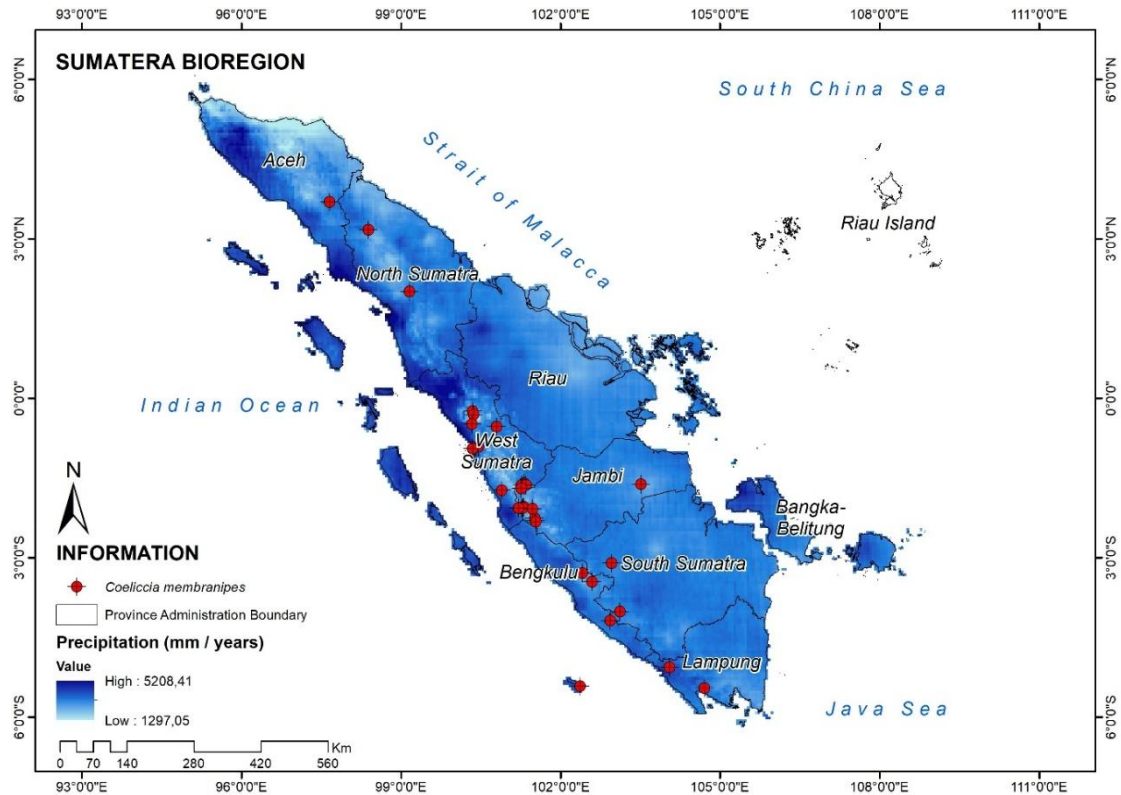
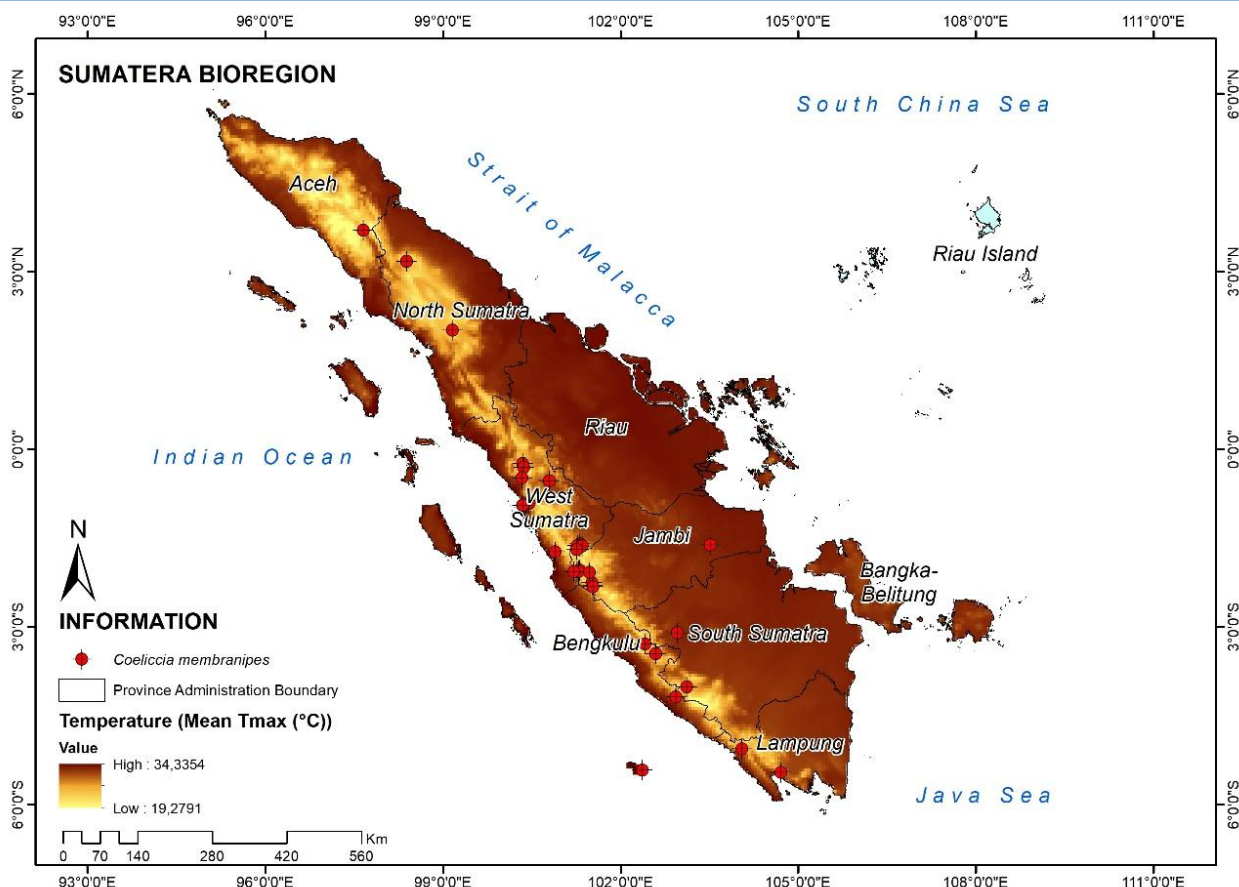


Figure 7. Distribution map of *Coeliccia membranipes* in Sumatera bioregion by precipitation gradient



**Figure 8.** Distribution map of *Coeliccia membranipes* in Sumatera bioregion by temperature gradient

## SPECIES VALUE

### Ecological Value

*Coeliccia membranipes* can be used as an indicator species for environmental quality monitoring and assessment (Wibowo et al. 2019). *C. membranipes* have an important function as biological control agents, especially as predators (Rohman et al. 2024).

### Economic Value

*Coeliccia membranipes* lies in its potential as a natural biological control agent that can reduce dependence on chemical pesticides. As a member of the order Odonata (dragonflies and damselflies), this species acts as a predator of various small insects that often serve as agricultural pests or disease vectors. Thus, the presence of *C. membranipes* not only supports ecosystem balance but also holds economic value through the reduction of pesticide costs and the promotion of more environmentally friendly agricultural practices. Studies have shown that Odonata play an important role in suppressing pest insect populations in aquatic and agricultural ecosystems (May 2019). *C. membranipes*, which is commonly found in natural river habitats in Indonesia, can also be utilized as an indicator of water and environmental quality, strengthening its value as both an economic asset within sustainable environmental management systems (Ali et al. 2025).

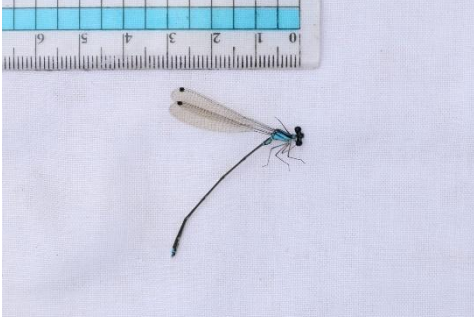

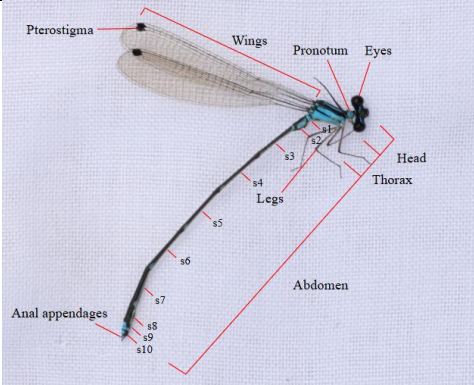
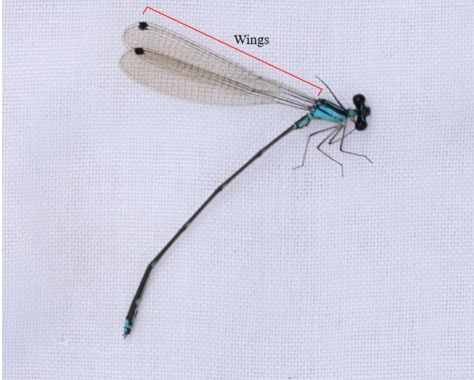
### Socio-Cultural Value

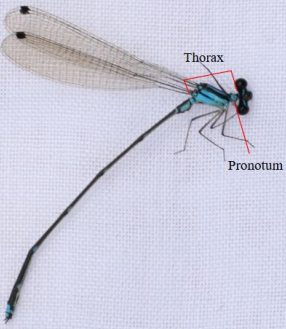
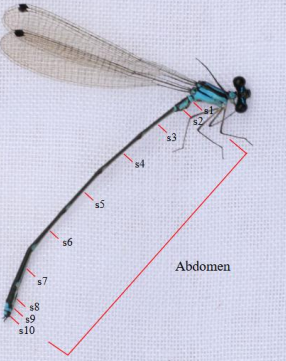
Not identified

## THREATS

Agriculture

## DOCUMENTATION

Picture	Title	Caption
	<p>Lateral view</p>	<p><i>Coeliccia membranipes</i> male, Gunung Halimun Salak National Park (Cikaniki Forest Resort), Desa Malasari Kec. Nanggung, Kab. Bogor, Jawa Barat, 26 Oktober 2025</p>
	<p>Lateral view</p>	<p><i>Coeliccia membranipes</i> female, Gunung Halimun Salak National Park (Cikaniki Forest Resort), Desa Malasari Kec. Nanggung, Kab. Bogor, Jawa Barat, 26 Oktober 2025</p>
	<p>Morphology</p>	<p>Total body length: 4.5 cm</p>
	<p>Wings</p>	<p>Wing length: 2.5 cm</p>

 <p>Thorax Pronotum</p>	Thorax	Thorax: 0.5 cm Pronotum: 0.1 cm
 <p>Abdomen</p>	Abdomen	Abdominal length: 3,6 cm

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