

# Dragonflies of Phu Quoc Island, South Vietnam

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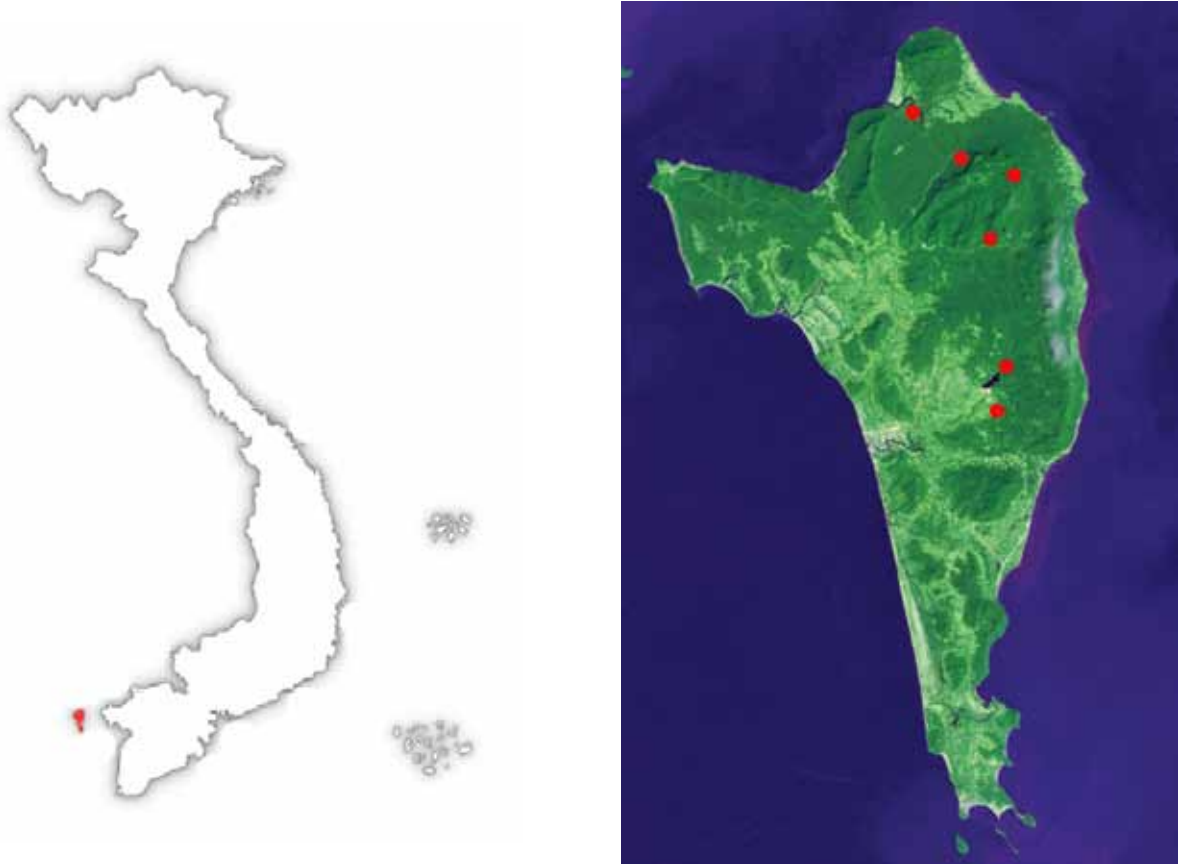
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## Introduction

The first publication on the dragonfly fauna of Phu Quoc Island was a photographic list in Vietnamese in 2008 by the second author, resulting from a biodiversity survey from 2007 to 2008 carried out by Wildlife At Risk. According to that publication, the dragonfly fauna of the island comprises about 20% of the total number of species known from the whole country.

Later, confused by the photos of two species, *Elattoneura* sp. and *Coeliccia yamashakii* from Bui Huu Manh's book (2008), the first author proposed a re-survey of the dragonflies on the island. The field trip was carried out from 1 to 9 March 2011, by all three authors.

## Phu Quoc Island



Maps 1-2. (1) Location of Phu Quoc Island. (2) Survey points in Phu Quoc Island, Landsat, U Minh Thuong Conservation and Development Project 2000. Study sites: from north to south, Rach Tram, Rung Giong, Nui Chua, Rung Quoc Phong, Duong Dong Lake and Da Ban Stream.

Phu Quoc is the largest in an archipelago of 14 islands in the south of Vietnam, with a national park situated in the north-east of the island. The topography of the national park is hilly, although not particularly steep. The highest point in the national park is Mount Chua at 630m altitude. Phu Quoc island supports various habitat types, including lowland evergreen forest distributed at an elevation lower than 600m, coastal sand, off-shore, limestone forests, scrub and anthropogenic habitats.

## Additional notes on dragonflies of Phu Quoc Island

This survey updates five species records for the Phu Quoc Island dragonfly fauna. Additionally, the species

*Rhinagrion mima* (Karsch, 1891) and *Acisoma panorpoides* Rambur, 1842 were recorded by the third author in 2009. *R. mima* was a new record for the Vietnamese fauna at that time.

A coenagrionid damselfly, which was recorded as an unknown species in 2009 by Nguyen, is confirmed as *Amphicnemis gracilis* Krüger, 1898, a new record for the Vietnamese fauna.

The species *Elattonaura* sp. in Bui (2008) is probably an undescribed species, and will possibly be described as a species of *Prodasineura*.

The species *Platylestes heterostylus* Lieftinck, 1932 in Bui (2008) is confirmed as *Lestes elatus* Hagen in Selys, 1862 and this species is also a new record for the Vietnamese fauna.

In this survey, the species *Coeliccia yamasakii* Asahina, 1984, previously only known from Thailand, was recorded in Phu Quoc Island, hence it is now truly recorded for Vietnamese fauna. This species has a pair of black inferior appendages, as compared to *C. scutellum* (*C. tomukunii* Asahina, 1997 is considered to be a junior synonym of *C. scutellum*), which has similar thoracic markings and was misidentified by Do, 2007. The species that was named as *C. yamasakii* from photos taken in June 2007 (Bui, 2008) seems to be an undescribed species because the marking on the synthorax is remarkably different from that of true *C. yamasakii*.

In his notes, Bui (2008) mentioned a species of *Microgomphus*; however, according to the description of the second author, it seems to be a species of *Burmagomphus*.

The species *Hydrobasileus croceus* (Brauer, 1867) was added to the Phu Quoc fauna.

## Updated checklist of dragonflies of Phu Quoc Island

### ZYGOPTERA

#### Calopterygidae

1. *Neurobasis chinensis* (Linnaeus, 1758)
2. *Vestalis gracilis* (Rambur, 1842)

#### Chlorocyphidae

3. *Heliocypha biforata* (Selys, 1859)
4. *Libellago hyalina* (Selys, 1859)

#### Euphaeidae

5. *Euphaea ochracea* Selys, 1859

#### Lestidae

6. *Lestes elatus* Hagen in Selys, 1862

#### Coenagrionidae

7. *Aciagrion borneense* Ris, 1911
8. *Agriocnemis pygmaea* (Rambur, 1842)
9. *Amphicnemis gracilis* Krüger, 1898
10. *Archibasis viola* Lieftinck, 1948
11. *Ceriagrion auranticum* Fraser, 1922
12. *Ceriagrion cerinorubellum* (Brauer, 1865)
13. *Ischnura senegalensis* (Rambur, 1842)
14. *Onychargia atrocyana* Selys, 1865



Photos 1-3. *Lestes elatus* Hagen in Selys, 1862. Credit: Nguyen V. K. 2011.

15. *Pseudagrion williamsoni* Fraser, 1922
16. *Pseudagrion microcephalum* (Rambur, 1842)
17. *Pseudagrion pruinosum* (Burmeister, 1839)
18. *Pseudagrion rubriceps* Selys, 1876

#### Platycnemididae

19. *Coeliccia yamasakii* Asahina, 1984
20. *Coeliccia* sp.
21. *Copera marginipes* (Rambur, 1842)

#### Protoneuridae

22. *Prodasineura* sp.

#### Megapodagrionidae

23. *Rhinagrion mima* (Karsch, 1891)

### ANISOPTERA

#### Gomphidae

24. *Ictinogomphus decoratus* (Selys, 1858)
25. Gen.? spec.?

#### Aeshnidae

26. *Anax guttatus* (Burmeister, 1839)

#### Corduliidae

27. *Idionyx* sp.

#### Libellulidae

28. *Acisoma panorpoides* Rambur, 1842
29. *Brachygonia oculata* (Brauer, 1878)
30. *Brachythemis contaminata* (Fabricius, 1793)
31. *Cratilla lineata* (Brauer, 1878)
32. *Crocothemis servilia* (Drury, 1770)
33. *Diplacodes nebulosa* (Fabricius, 1793)
34. *Diplacodes trivialis* (Rambur, 1842)
35. *Hydrobasileus croceus* (Brauer, 1867)
36. *Lathrecista asiatica* (Fabricius, 1798)
37. *Lyriothemis mortoni* Ris, 1919
38. *Nannophya pygmaea* Rambur, 1842
39. *Neurothemis fluctuans* (Fabricius, 1793)
40. *Neurothemis fulvia* (Drury, 1773)
41. *Neurothemis tullia* (Drury, 1773)
42. *Onychothemis testacea* Laidlaw, 1902
43. *Orchithemis pulcherrima* Brauer, 1878
44. *Orthetrum chrysis* (Selys, 1891)
45. *Orthetrum glaucum* (Brauer, 1865)
46. *Orthetrum sabina* (Drury, 1770)
47. *Pantala flavescens* (Fabricius, 1798)
48. *Potamarcha congener* (Rambur, 1842)
49. *Rhyothemis obsolescens* Kirby, 1889
50. *Rhyothemis phyllis* (Sulzer, 1776)
51. *Rhyothemis triangularis* Kirby, 1889
52. *Rhyothemis variegata* (Linnaeus, 1763)
53. *Tetrathemis irregularis* Brauer, 1868
54. *Tetrathemis platyptera* Selys, 1878
55. *Tholymis tillarga* (Fabricius, 1798)
56. *Trithemis aurora* (Burmeister, 1839)
57. *Trithemis festiva* (Rambur, 1842)
58. *Trithemis pallidinervis* (Kirby, 1889)



Photo 4. *Amphicnemis gracilis* Krüger, 1898 (red form). Credit: Nguyen V. K. 2009.



Photo 5. *Coeliccia yamasakii* Asahina, 1984. Credit: Bui H. M. 2011.



Photo 6. *Coeliccia yamasakii* Asahina, 1984, female. Credit: Bui H. M. 2011.

59. *Urothemis signata* (Selys, 1872) 127  
 60. *Zygonix iris* Selys, 1869

**Conclusion**

The research updated five species of dragonflies for the Phu Quoc fauna, three of which are new records for Vietnam (*Amphicnemis gracilis*, *Coeliccia yamasakii* and *Lestes elatus*). The species named as “*Coeliccia yamasakii*” and *Elatoneura* sp. in Bui (2008) are probably undescribed species. *Lestes elatus* is a new record for the Vietnam fauna and it is considered misidentified by Bui (2008) as *Platylestes heterostylus*. Further study of dragonflies on the island is needed to understand fully the fauna of the area.

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Photo 7. *Rhinagrion mima* (Karsch, 1891) .  
 Credit: Nguyen V. K. 2009.



Photo 8. *Hydrobasileus croceus* (Brauer, 1867). Credit: Do, M.C. 2011