The Odonata of Montserrat

Project by Helen K. Larzleer in conjunction with the University of Reading, UK.

Special thanks to the Montserrat Ministry of Agriculture, Department of Environment, and the United Kingdom Overseas Territories Association.

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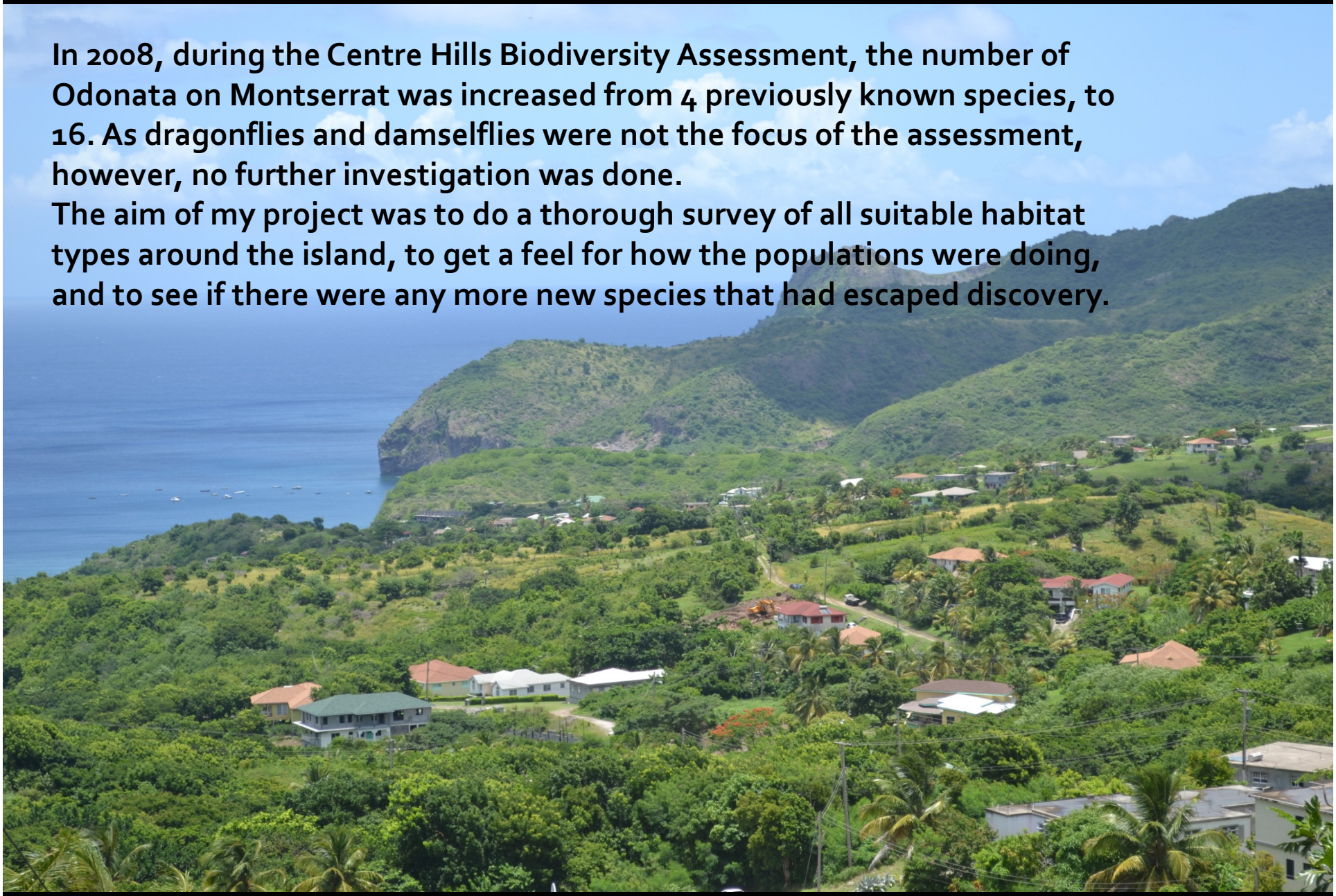


In 2008, during the Centre Hills Biodiversity Assessment, the number of Odonata on Montserrat was increased from 4 previously known species, to 16. As dragonflies and damselflies were not the focus of the assessment, however, no further investigation was done.

The aim of my project was to do a thorough survey of all suitable habitat types around the island, to get a feel for how the populations were doing, and to see if there were any more new species that had escaped discovery.

Methods

- Once suitable locations were chosen, the job of capturing and photographing the species could begin.
- I needed to capture as many individuals as possible to take close up photos, to ensure that my identifications were correct.
- This project could not have been a success without the help of the Department of Environment staff.

- Once everyone had the hang of capturing dragonflies with the butterfly net the real work could begin!
- I am happy to say that during this project I was able to add two new species to the Montserrat Odonata list.

Ischnura hastata

Found at Lookout Pond

Ischnura hastata

Rhionaeshna psilus

Found near Blakes Estate

- I was also able to find several populations of the two Lesser Antilles Local Area Endemic species which were reported to live on Montserrat.

Orthemis macrostigma

Protoneura romanae

- Each day was an adventure, and although the weather wasn't always cooperative, I managed to photograph and ID a total of 14 species during my six week study.
- There were three species which I was unable to find, one due to the fact that it is most active at dusk, and two which may live in areas that I was unable to visit due to time and weather.
- There was a mystery Macrothemis sp listed in the 2008 assessment that I did not encounter, and unfortunately have not been able to find more information on.
- This means that the final species count for Odonata on Montserrat is now 18.

Tramea abdominalis, possibly the most abundant

Tramea abdominalis

Erythemis vesiculosa
SIGMA

Pantala flavescens

Miathyria marcella

rachymesia herbida

Anax junius, currently the largest known species in existance.

Erythrodiplax umbrata

Dythemis sterilis

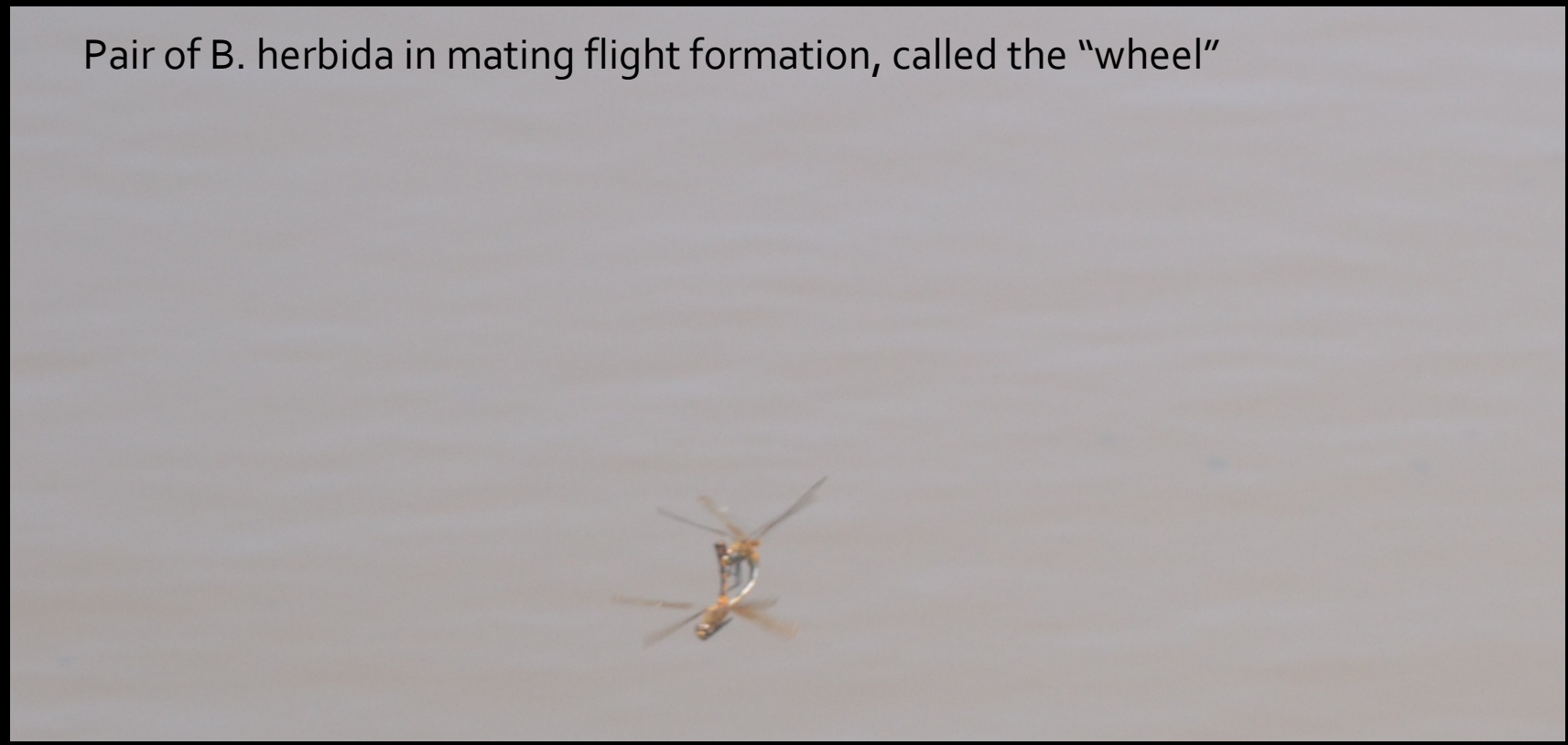
Enallagma coecum

Lestes forficula

Ischnura ramburii

- After a few weeks of observation I was comfortable enough with the species to spend less time trying to photograph them, and more time observing their behaviour.

Pair of B. herbida in mating flight formation, called the “wheel”



After mating the female is released, and flies around the pond dipping her abdomen in the water to deposit the eggs.

Odonata Life Cycle

- After the eggs are laid by the female, a young dragonfly may hatch anywhere from 2-5 weeks later.
- The dragonfly larvae then live and grow under water - some for a few weeks, some for a few years.
- When they are finally ready to become adults they climb out of the water, usually on a piece of vegetation, emerge from their larval skin in the same way a butterfly climbs out of its cocoon, and fly away.
- Adult dragonflies usually live for up to seven months.

Exuvia from two different species

- Both Dragonflies and Damselflies are active predators, eating tadpoles, mosquitoes, flies, and just about anything else which is smaller than them that they can catch
- A healthy dragonfly population may help in the control of toads and mosquitoes.

This jumping spider did not appreciate having a visitor on his twig!

Thank you!