INVERTEBRATA FALKLANDICA

Recording the terrestrial and freshwater invertebrate biodiversity of the Falkland Islands

Falkland Islands Invertebrates Conservation Project (FIICP) Newsletter: Issue 5, January 2006

Invertebrata Falklandica (or 'invertebrates of the Falkland Islands') is the quarterly newsletter of the Falkland Island Invertebrates Conservation Project (FIICP). The aim of this Newsletter is to inform those with a link to, or an interest in the Project, of recent and upcoming developments. It will be distributed by e-mail. Printed copies may be requested from Falklands Conservation.

The Falkland Islands Invertebrates Conservation Project (FIICP) is a Falklands Conservation program supported by the Natural History Museum (London) and the University Museum of Zoology Cambridge, and funded by the Darwin Initiative (UK, Department of Environment, Food and Rural Affairs).

SECOND PROJECT FIELD SEASON COMMENCES

The second FIICP field seasons began on the 8th of January 2006, and will last until the end of March 2006. During this period survey work will be carried out on: East and West Falkland, Carcass Island, New Island, and Sea Lion Island. The emphasis of these surveys is to provide detailed information on the species present at sites of specific conservation importance, such that future changes in species presence/abundance at these sites might be identified.

The surveys will be carried out by the project scientist, Dr Alex Jones, who will also be running an island 'Invertebrate Taxonomy and Conservation' course. This course, which will take place in Port Stanley from the 3rd of March until the 24 of March, will train 15 Falkland Islanders in basic invertebrate taxonomy and field work techniques, building on levels of local expertise developed by a previous course taught in January 2005.

Additional events to raise the projects profile with the local community will include two radio interviews, the distribution of a free butterfly recording calendar (see page 2), and field trips with the islands youth conservation organisation, the Watch Group.

Packing project equipment in the Stanley offices of Falklands Conservation (11th Jan)

A main aims of the FIICP is to raise the profile of invertebrates as part of the biodiversity heritage of the Falkland Islands. So far feed-back from Falkland Island residents has been good, and as the project progresses an increasing number of Islanders have been contacting Falklands Conservation with invertebrate related queries. It is hoped that the current field season can build on the momentum of growing awareness already created.

NEWS IN BRIEF

MILESTONES

- OCTOBER 14th 2005:
  Project talk given at Cambridge University entitled 'Endemics, Insects and the Territories'

- OCTOBER – DECEMBER 2005:
  Taxonomic work continues at the UMZC on materials previously collected.

- NOVEMBER 2005:
  Field equipment for the 2006 field seasons is procured and shipped to the Falkland Islands.

- DECEMBER 2005:
  An 'Insects of the Falkland Islands' butterfly recording Calendar for 2006 is produced and distributed to landowners within the Falkland Islands (see next column).

FORTHCOMING EVENTS

- JAN – APRIL 2006:
  Second field season of data collection takes place within the Falkland Islands. Survey work is planned for both East and West Falkland and on Carcass Island, New Island and Sealion Island (see page 1).

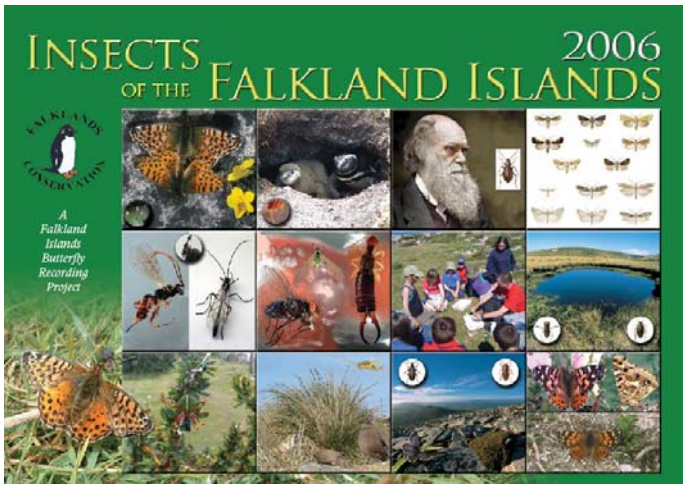
- MARCH 2006:
  A three week 'Invertebrate Taxonomy and Conservation' field course will be held in the Stanley (FI).

- APRIL 2006:
  Invertebrata Falklandica, Issue 6

BUTTERFLY RECORDING CALENDAR DISTRIBUTED IN THE FALKLAND ISLANDS

In order to increase awareness of the FIICP within the Falkland Islands and engage islanders to advance current knowledge of flight-times of local butterfly species, Falklands Conservation have produced a 2006 Butterfly Recording Calendar. This calendar has been distributed freely to all landowners within the Falkland Islands. Each page for every month of the year has information and illustration on a different Falkland insect theme. In addition every calendar page also has space to jot down butterfly sightings, with keys to species identification, a grid reference map, and a recording form all provided.

It is hoped that at the end of 2006, many of these recording forms will be returned to Falklands Conservation, and that the data provided will be of help in determining the flight-time of the Queen of the Falklands fritillary, and the periods in which the Islands are visited by species of painted lady migrating from South America.



Front page of the 2006 Falklands Conservation 'Insects of the Falkland Islands' calendar

A FOCUS ON

FALKLAND MACRO MOTHS

Part 1: the Noctuidae

(Order Lepidoptera)

The insect order Lepidoptera contains both the butterflies and the moths. Moths are often though of as drab nocturnal animals, the butterflies more ugly cousins. Yet in truth the differences between those Lepidoptera we think of as butterflies and those as moths are often not as clear as might be expected. Many moths are gloriously colourful and day active, while some butterflies are drab and avoid daytime activity. A simple technique for separating butterflies and moths in the Falkland Islands is that the butterflies have little clubs on the ends of their antennae while the moths do not (this does not hold true for all species elsewhere in the world !).

Moths have often been separated into two groups based on their size, the macro-moths and the micro-moths. Although this division is taxonomically artificial, and often overlaps in size ranges, it does provide a simple way of subdividing a complex group of insects. The most commonly seen macro-moths of the Falkland Islands are the Noctuids (owlet moths) and two of the most beautifully patterned of these are shown on this page, the brocade moth and the ochre shoulder moth.

the Falkland Islands brocade moth (*Pareuxonia falclandica*)

With over 25,000 species worldwide, the Noctuidae is the largest family within the Lepidoptera. Noctuids are characteristically stout moths, covered with long dense scales, and having 1-segmented maxillary palpi. They are generally night flying insects often attracted to household lights in great numbers. A reflective layer present in the eyes of owlet moths may cause them to appear to glow red when reflecting the lights that attract them.

the Falkland Islands ochre shoulder moth (*Caphornia flavicosta)*

More than a dozen species are known from the Falkland Islands, with some species yet to be identified. Both the adult, and larval, moths provide an important food source for many of the islands' smaller terrestrial birds such as Cobb's wren and the tussacbird. The larval caterpillars feed mostly on grass roots and stems, and can become a garden pest. The characteristic damage caused as caterpillars chew through the bases of grass stems gives them the common name of cutworms.

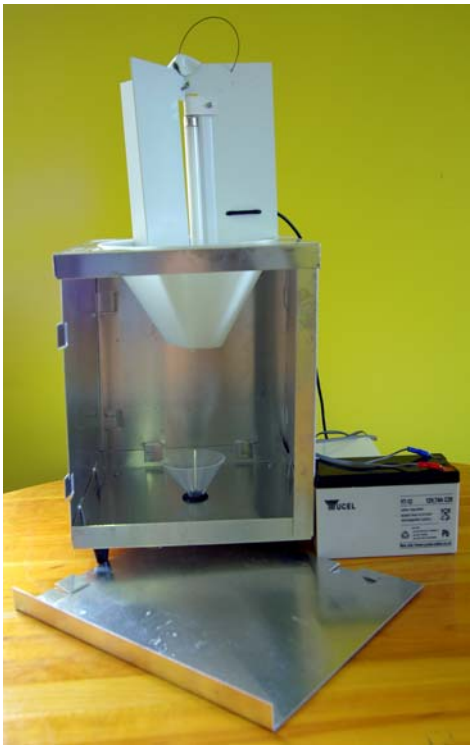
The drawings on this page were made by *R. Lewington*, and are taken from the Falklands Conservation publication Jones, A. G. (2004) Insects of the Falkland Islands. They are reproduced here with the artist's kind permission.

NOTES ON SURVEY TECHNIQUES:
LIGHT TRAPPING

Light sources are an attraction for many species of insect, especially those which are more active during the night, and the insects best known for this behaviour are the moths. Moths are commonly attracted to the lights of settlements in the Falkland Islands, congregating on the outside surfaces of farmhouse windows. Many older text books suggest that this attraction is a result of insects exhibiting some form of 'lunar navigation', orientating themselves to the light reflected from our moon. However, on closer examination the response of most species to a bright light source is not that which we would expect if 'lunar navigation' were the explanation. In addition, most moth species do not fly on moonlit nights and are most often attracted to light sources on nights when cloud cover is heavy. While we still have much to learn on the mechanisms behind insect attraction to light sources, the phenomenon does provide an efficient way of surveying many nocturnal insect species using light traps.

The simple basic premise of a modern light trap is that an electric light source attracts insects. Light trapping can be as simple as shining a torch, or car headlamps, onto a white sheet then hand collecting the species that arrive. More complicated traps collect the insects inside containers, to be examined at the collector's convenience. In such traps, a funnel or baffle is used to provide both easy access to and difficult escape from, a container either housing, or in close proximity to, the light source. The light for such traps may be run from a mains, or battery, source, and such traps have the advantage that they can be left unattended, providing good returns for minimal effort.

The FIICP uses a variety of light traps based on a funnel design (see photo opposite). These traps are lightweight for easy use in the field, and have proved efficient in collecting moths in the Falkland Islands, particularly Noctuid species (see page 3).



A basic light-trap with one side removed for illustration purposes

CONTACT DETAILS

For general project enquires or suggested additions to the newsletter circulation list contact the UK office of Falklands Conservation at:

Falklands Conservation
1 Princes Avenue
Finchley, London, N3 2DA
Tel: 0208 343 0831
Email: ann@falklands-nature.demon.co.uk

For taxonomic/scientific enquires contact:

Dr A. G. Jones
University Museum of Zoology Cambridge
Department of Zoology, Downing Street
Cambridge, CB2 3EJ, UK
Email: agj25@cam.ac.uk

Falklands Conservation is a UK registered charity founded by the late Sir Peter Scott and fellow conservationists in 1979 to monitor and protect the exceptional wildlife heritage of the Falkland Islands. For additional information see the FC website at www.falklandsconservation.com.