The other most popular areas of the website over the past year were the links page (note that I recently fixed a number of outdated links—please let me know if you find these), the meetings/conferences pages, our (small) education webpage, and the newsletter back issues. The HotScience webpages, which identify and summarise NZ ecology published in the international literature, remain well used with just under 3,000 visited pages in the past year

Two thirds (64%) of the overall visitors to our website come from NZ computers. This is the same as last year (65%), indicating that the recent large growth in site popularity has been fueled equally by local and international visitors. Since I took over as webmaster in May 2002, 38,266 different computers have visited our website and viewed 145,666 pages. These are great signs of the continued relevance of the NZ Ecological Society and its publications both nationally and internationally.

The web statistics are provided (for free) by www.webstat.com.

New developments

As mentioned, the back issues of the *NZ Journal of Ecology* went online at the end of August 2004. This was the culmination of a massive amount of work by many people. It is great to see the site being so well used.

Our *NZJE* full text project and website are being used as the model for similar full text back issue projects by the NZ Entomological Society and the NZ Ornithological Society, also funded by TFBIS. Full text back issues of the *NZ Entomologist* were launched at this year's conference in Napier in April (http://www.ento.org.nz/nzentomologist/). I modified our NZJE dynamic website structure for use on their site and built a search engine to run on it. This saved them time and money and will have the added benefit of allowing us to build a joint search engine that includes both journals. The NZ Ornithological Society is considering adopting our website structure also, which will allow for a fantastic degree of information flow among the three sites.

Roger Dungan (one of our two *NZJE* technical editors) and I have worked together over the past months to now offer "in press" pre-publication of papers as soon as they become available. This means that authors with papers accepted to *NZJE* can now have a fully formatted PDF file of their paper available on the *NZJE* website months before the print version is posted. This will help shorten the time between submission of a manuscript and the distribution of the science to users. We hope this will make the journal (even) more attractive for potential contributors.

Some of you may have noticed a few hidden rough edges in the *NZ Journal of Ecology* site. These will be smoothed out by this year's conference. The figures still need to be inserted into *NZJE* volumes 1–8, I need to correct a list of minor errors in PDF files identified by users since the site launch (thanks!), the Occasional Publications PDF files need to go online, and an advanced search function will be provided (I built a fully functioning version of the search engine for the NZ Entomologist and will pop it into the *NZJE* site soon).

I set up an electronic resources area this year (www.nzes.org.nz/e_resources.html). It currently contains the significant natural areas workshop notes from last year's conference, edited by Judith Roper-Lindsay. This has had 516 page views. There is potential to greatly expand this area to include things like past conference abstracts, conference PowerPoint talks, symposium summaries, and historical documents from the society.

Still to come

A few other long planned improvements to the site are now in the works. The priority additions, other than the *NZJE* improvements listed above, are the HotScience webpages (which need upgrading to be made more flexible and editable) and the long promised on-line membership service (join the society, pay your subs, update your postal address, change your password to access member only services, etc.). As always, suggestions and help are appreciated.

Jon Sullivan, Lincoln University
webmaster@nzes.org.nz
1 May 2005

ECOLOGY STUCK ON THE WEB

Part two: Invertebrates on the web

In the last newsletter, I introduced some of the plant identification resources available on the web, including Landcare Research's excellent Flora series (http://floraseries.landcareresearch.co.nz). Since then a major new resource for insect ecology and identification has been launched. This makes it timely to introduce some of the New Zealand invertebrate information now available at our finger tips.

All back issues of the *NZ Entomologist* became available on the web (http://www.ento.org.nz/nzentomologist) at the annual conference of the NZ Entomological Society in April. Big thanks go to Steve Pawson and Raphael Didham for making this happen and to TFBIS for funding it. (TFBIS is an acronym that takes a paragraph to expand so let's stick with TFBIS.) TFBIS also funded the back issue project of *N.Z.J.Ecol.*, indisputably the best journal on NZ ecology in the universe and on the web at http://www.nzes.org.nz/nzje/. Blatant acts of propaganda aside, note that the *NZ Entomologist* goes all the way back

to 1951 and contains a small mountain of ecological, taxonomic, and natural history information.

Ho hum, you may think. What's the fuss? I could have walked over to the library anyway. Ah, but one of the marvels of these online journals is full text searching (and small journals like *NZ Entomologist* are not covered by the traditional abstract citation search engines). Searches that would have been impractically time consuming can now be achieved in milliseconds. You can find in an instant every *NZ Entomologist* article ever that used the word "pollination". Or, search on "pollinat*" and you'll get all articles that contain words that start with "pollinat...". You can then download and read each one (and search inside it for your keyword). Try it with your favourite insect. You know you want to!

There are no NZ insect identification resources as complete as the Flora series online (the excellent hardcopy Fauna series has a limited presence online). However, there is a lot else to be found. The best sites can be found on the NZ Ecological Society links page (http://www.nzes.org.nz/links.html#inverts). If you know of others, pleas tell me and I'll add them.

One site I particularly like is Landcare Research's NZ Lepidoptera type specimen web pages (with the ungainly web address of http://www.landcareresearch.co.nz/research/biodiversity/invertebratesprog/lepidoptera/). This is one of several excellent online invertebrate resources on the Landcare Research website based around the National Arthropod Collection. You can use these webpages to see a photo of the type specimen of a species whenever some clever taxonomist in a waistcoat tells you about a NZ moth, or when you read about a species in an old NZ Entomologist article. The screen is split so you can compare two moths side by side. It's a great way to put wings on a name but the site won't allow a lowly plant ecologist to identify an obscure moth from scratch (the DNA folk are working towards a gadget that will do that).

Te Papa also has a growing amount of insect information online based around its collections. These webpages give you an overview of many invertebrate groups in NZ and identify key references (these are often NZ Entomologist articles!). The Te Papa site includes the Spiders of NZ website which contains lots of information and great photos for a small number of common spiders (this has another paragraph long web address, http://www.tepapa.govt.nz/TePapa/English/CollectionsAndResearch/Collections/InsectsSpidersAndSimilar/Spiders/Spiders_Web/).

Te Papa spiders segue into my closing remarks. Last month, somebody in Germany (!) emailed me to point out that a number of the links on the NZ Ecological Society links page were not working. Yikes! I went through and tested them and, sure enough, I had to update a surprisingly large handful of links that worked fine just 1–2 years ago. It wasn't that small amateur sites had disappeared or moved, it was that large institutions like Te Papa (including the Te Papa spider site), government sites, and a few universities and CRIs had scrambled their websites in the name of progress. Redirecting people from old pages to new pages is technically a simple thing to do but must be time consuming with large sites. Still, I've never figured out why this effort is not made when an institution decides to make a different kind of spider omelette with its website.

Jon Sullivan
Lincoln University
NZES Webmaster webmaster@nzes.org.nz

"IN PRESS" ARTICLES NOW ON THE WEBSITE

The *NZ Journal of Ecology* website (http://www.nzes.org.nz/nzje/) now includes "in press" articles as soon as they are formatted. At the time of writing, four articles that will appear in issue 29(1) are already available for download on the website. These are fully formatted PDF files that will be identical to the final paper except for their lack of page numbers.

Note that you should cite these articles as "in press" until the hard copy journal issue is printed and distributed. The Society's aim in making these articles available immediately is to use our website to minimise the time between the submission of manuscripts and the availability of the resulting article.

Jon Sullivan (*webmaster*) and
Roger Dungan (*technical editor*)

ECOLOGICAL MISCELLANY

Using non-destructive sampling methods for invertebrates

Although broad spectrum techniques for arthropod monitoring, such as Malaise and pitfall trapping, ensure rapid acquisition of substantial collections, these lethal trapping techniques may prove counter-productive when investigating sites or taxa of conservation importance. Such methods indiscriminately collect a wide diversity of taxa, which is useful for biodiversity studies, but often a researcher only requires a single species, family or order. Non-lethal survey techniques, such as timed hand searches and transect sampling can be useful in assessing populations of large, active, readily identified insects such as butterflies (Lepidoptera) and dragonflies (Odonata). Another group of non-lethal techniques that can provide standardized arthropod samples are 'artificial retreats'. These shelters range from 'cryptozoa boards', to sample soil surface arthropods,