Worldwide Dragonfly Association

AGRION

THE NEWSLETTER OF THE WORLDWIDE DRAGONFLY ASSOCIATION

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EDITORIAL

My thanks to everyone who has sent their reminiscences – I have enjoyed reading them and hope that you will find them as interesting as I have done. You will notice however that, apart from one contribution from an Australian (Jan Taylor, bless him!), all the rest emanate from Europeans, which is disappointing. We have 57 members living in the Americas – I can appreciate that your first loyalty is to **Argia** but please do remember that ***AGRION*** is the newsletter of a worldwide association NOT just a European one – indeed, our next President will be Mike May. I badly want to include articles from around the world and would much appreciate your help. **Let the next issue be a bumper one**.

Prospects for WDA – Philip Corbet, Mike May and Mike Parr

WDA was formed in 1997 in an atmosphere of buoyant optimism and the hope that it would develop into a premier entomological society, meeting the highest scientific standards.

A commitment from its members to ensure its future prosperity as a democratic multinational association was evident from the outset. We believe that we have now achieved these aims: the Association's Constitution and By-Laws are firmly in place; and a growing, worldwide membership freely exchanges ideas and information through an excellent journal published twice yearly. Our aim to secure a long-term, vibrant future for WDA has been made easier because our inauguration more or less coincided with the advent of e-mail. This has allowed members, especially the Board of Trustees, to maintain frequent and inexpensive communication with each other, which was not possible previously.

However, of one thing we can be certain. Just because WDA has a Constitution and a fund of goodwill, it won't necessarily survive as an effective, democratic, multinational association. To achieve this will require skill, resolve and care. Experience tells us that all man-made institutions are liable to encounter difficulties unless certain precautions are observed. These precautions can conveniently be regarded as constituting a Code of Practice for managing associations. Accordingly we propose to our many friends in WDA that we all try to adopt the following Code of Practice as a means of safeguarding the long-term viability of WDA:

CODE OF PRACTICE

1) Ensure the effectiveness of the Board of Trustees as a decision-making body. This means that, wherever possible, Board members should use e-mail or telephone to communicate within the Board and respond promptly to messages. It means also that they should discharge their assigned responsibilities promptly and conscientiously. The Board should be kept small, and certainly no larger than it is now. By such means can confidence in effectiveness of the Board be maintained.

2) Respect the Constitution and By-Laws at all times and in all respects.

3) Keep oneself informed about, and be willing to assist in, the business of the Association. This applies especially, but not only, to members of the Board.

4) Address all complaints in the first place to the Board. Treat all members with consideration, courtesy and respect. If differences of opinion arise, avoid adversarial behaviour and wherever possible attempt a charitable interpretation of the behaviour of which one disapproves.

5) During WDA discussions and activities, always put the long-term interest of the Association first.

6) Share information freely.

7) Be generous, giving credit where it is due.

NOTICE of the 3rd W.D.A. BIENNIAL MEETING

The 3rd Biennial General Meeting of the Worldwide Dragonfly Association will be held at La Trobe University, Beechworth, NSW, Australia on Sunday 12th January 2003 (at a time to be confirmed).

Collecting Dragonflies: the Association's View - Mike Parr

Preamble

At WDA's Second Biennial General Meeting held at Gållivare, Sweden on 24 July 2001, I (as the then President of WDA) made four proposals:

- that WDA draw up a Code of Practice for Collecting Dragonflies;
- that the Code of Practice be published in the Association's Web Pages and newsletter;
- that an article be published in the newsletter unequivocally stating WDA's support for the need to collect voucher specimens of dragonflies for research, and deploring the activities of any persons who try to interfere with such collecting; and
- that a copy of the newsletter article and an explanatory document prepared by me be sent to "Presidents or Directors of national organizations, including museums, whose members are likely to be at risk from vigilante activity, inviting them to take an explicit stand supporting the need to collect for research purposes." I made a fifth proposal, withdrawn during the meeting, relating to the same topic. As a prelude to discussion of these proposals, I had distributed to all members likely to attend the meeting a document dated 24 July 2001) giving notice of a motion and explaining the background of events that had led to the proposals. Regarding the first proposal, I reported that the Board of Trustees had agreed the previous day that a Code of Practice be produced. Regarding the third proposal, an amendment was passed by the meeting to the effect that, before being published, the article should be distributed, for inspection and approval, to the 8 members who expressed a wish (at the meeting) to see it in draft form. The first, second and fourth proposals, and the third proposal as amended, were passed unanimously at the meeting. In accordance with the decision of the meeting, two actions have now been performed. First, a Code of Practice has been drawn up and, after approval by all members of the current Board of Trustees, as well as me, will be published in ***AGRION*** (See pages 22, 23 in this issue). Second, the article specified in my third proposal, approved by 7 of the 8 members who asked to see it (one did not reply) and by all but one of the members of the current Board (one did not reply), as well as me, appears below. The article draws heavily on the explanatory document that I prepared in support of my proposals. Action to implement the fourth proposal will soon be undertaken by the Secretary of WDA. David Fitch has been generous with advice during the preparation of this article.

*Statement**: the Association's view***

The WDA is a Registered Charity required by its Constitution to promote the study and conservation of dragonflies and their natural habitats in all parts of the world. In furtherance of this aim, WDA has the power to promote collaborative research among odonatologists throughout the world.

1. Members and Trustees can assume, expect, and hope that WDA will strive for the highest standards in pursuing these goals.
2. Odonatology, including faunistic studies, involving taxonomy and science-based conservation of species and habitats, often requires the collection and retention of voucher specimens so that determinations can be subject to independent verification and re-evaluation in the light of future knowledge - procedures that underpin the scientific method. This requirement does not sanction collecting specimens for sale.
3. Many people, including members of WDA and other scientists, have an aversion to killing animals. This aversion does not entitle then to interfere with legitimate activities of scientists who need to secure voucher specimens for research.
4. Accordingly the WDA includes within its Code of Practice this statement:

"WDA unequivocally **endorses** the need to collect voucher specimens of dragonflies for the furtherance of odonatology through scientific research. WDA unequivocally **deplores** the behaviour of anyone who tries to obstruct, intimidate or slander anyone trying to collect dragonflies while complying with the WDA Code of Practice"

The Cover Photograph of IJO: An Invitation to WDA Photographers

With IJO 5(1) in your hands you were confronted with a new cover photograph, and I hope you enjoyed it. I am convinced that varying photographs help to make the appearance of the journal more attractive. Backhuys Publishers will generously give us the opportunity to change the cover photograph with each volume. We started with a portrait of the African coenagrionid *Enallagma deserti,* perfectly demonstrating the beauty of dragonflies as well as today's high standard of insect photography. Bernd Kunz, a professional photographer and WDA member, made the picture available for our journal.

The new cover photo is linked to another modification you certainly will have noticed. We have now discontinued the confusing use of two names for our journal. The official name has always been the 'International Journal of Odonatology', and only under this name can the journal be cited. The other name 'Pantala' is a nickname, reflecting the early wish and expectancy that WDA would act as globally as the Globe Skimmer, *Pantala flavescens*. IJO is meanwhile firmly established as a taxon-orientated journal attaining a high scientific standard. In this situation the journal no longer needs a nickname and we therefore removed the word 'Pantala' from the cover. In consequence, the cover page need no longer invariably bear Jill Silsby's photograph of *P. flavescens*

For subsequent volumes I shall invite members to submit photographs which should fulfil the following criteria:

- High quality
- The shape and coloration have to go well with the yellow colour of the cover.
- All continents may be considered, but there is no strict order.
- Species for which no or almost no photographs are available, will be preferred.
- Photographs showing seldom-documented situations, e.g. behavioural or morphological aspects, will be preferred.

Please send a print, ca 13 x 18 cm, of your best photograph to the Editorial Office before 16 December 2002, and provide some information about its content. A selection committee will annually choose the best photograph for the subsequent volume. The selected photographer will immediately be requested to send the original slide to the Publisher for processing. Copyright of any photo used will reside with IJO.

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NEWS from MEMBERS

Antonio Assiego (Spain): Antonio is a new member who describes himself as "a Botanist-Zoologist, Naturalist and Agricultural Engineer". He writes: "Here in southern Europe and Malaga we have a lot of *Anax imperator, Lestes viridis, Libellula depressa, Orthetrum* and many more. When I was a child I lived on a farm with many trees and ponds with big dragonflies around the water. Afterwards I went to study in Seville (5 years), Madrid, Wien (Austria) and also I have lived in London, Southampton, Winchester & Bournemouth in England; in Germany, Holland, France and Belgium; and in South Africa and Brazil." A well-travelled gentleman and I hope to hear more from him.

Philip Corbet (UK) has been awarded the Neil Medal of the Royal Society of Edinburgh for his "Dragonflies. Behaviour & Ecology of Odonata". The Prizes Committee felt that this publication "makes a major contribution to natural history as an extraordinary piece of scholarship and biological insight".

He made a brief odonatological excursion to Namibia and writes: "Between 12 and 26 February 2002 I was privileged to stay with the odonatological research team from Braunschweig Technical University at its base in Tsaobis Leopard Nature Park in Namibia. The research team comprised **Frank Suhling**, the camp leader, Professor Otto Richter, a biomathematician and modeller, who is Vice-President of Braunschweig University, and three students, Kamilla Schenk, Nadine Habekost and Sandra Giere. Frank Johansson, from Umeå University, Sweden was another visiting odonatologist. After Frank Johansson and I returned to Europe, **Andreas Martens**, from Braunschweig University, took over from Frank Sühling as camp leader. The research programme centred on strategies exhibited by migrant dragonflies that enable them to develop and compete in ephemeral bodies of water. This work is a component of a comprehensive survey of the Odonata of Namibia and their ecology, which is itself part of a large pan-African project BIOTA ("Biodiversity Transect Analysis in Africa") funded by the German Ministry of Science (BMBF). At Tsaobis, observations of adults, larvae and eggs are made at a set of eight small, shallow, artificial ponds, some with surrogate rooted plants and some without. I could hardly have been more fortunate regarding the timing of my two-week visit because my first week was the last of the long dry season and my second was the first of the rainy season; so I could witness this all-important seasonal transition at first hand. I found it exciting to experience the arrival of the rains. From one day to the next the sky changed from a cloudless glaring blue to a dark steely grey, framing a horizon streaked by vertical curtains of rain.

"Over the dry veld scattered pools suddenly appeared, each with one or two adults of *Pantala flavescens* localising above it. The energy and persistence of this species as it dashes around over a pool, seemingly for hours at a time, under the fierce sun, is remarkable to behold, especially when, for the human observer, even a brief exposure to such conditions turns one's thoughts

compellingly toward the early acquisition of a cold beer. And then, at sunrise and sunset, one would be treated to the magical, darting aerobatics of *Tholymis tillarga*, its hind wings sporting blue-grey UV-reflecting patches that twinkle in the half light, as males and females make their brief, frenetic visits to water.

`Such rewarding encounters with old friends among African dragonflies and with new friends among members of the team at Tsaobis will find a place in my rich store of happy memories.

Rory Dow (UK) introduces himself as follows: "I am strictly an amateur odonatologist (I am a mathematician); I have always liked dragonflies but as I lived in London until a few years ago I rarely saw any. In 1998 I made a career change, leaving academia for industry, and moved to Chelmsford, Essex, where I live on the outskirts of town. I started walking in the countryside regularly and saw many dragonflies and damselflies in the summer months. I had not previously realised quite how varied they were, I had never seen species like the Broad Bodied Chaser (*Libellula depressa*) or Banded Demoiselle (*Calopteryx splendens*) before, and became hooked.

" Whilst most of my odonatological activities to date have been in Essex, I have been dragonfly watching in the USA, in West Virginia and Maryland in 2000 after a conference in Washington DC and in California in 2001. Highlights of the first trip included Black Shouldered Spinyleg (*Dromogomphus spinosus*), American Rubyspot (*Hetaerina americana*) near the Potomac river and Eastern Amberwing (*Perithemis tenera*) and Green Darner (*Anax junius*) in central Washington (!) and a Great Blue Skimmer (*Libellula vibrans*). On the second trip, armed with Kathy Biggs's book, the species I saw included *Telebasis salva*, *Ischnura cervula*, *Tramea lacerata*, *Libellula saturata*) and an all-too-fleeting glimpse of a Giant Darner (*Anax walsinghami*). The highlight of the trip was probably an incredible view of a pair of Green Darners ovipositing in tandem, courtesy of the new pair of short-focusing binoculars I I had bought just before leaving England.

" This coming Sunday (March 24) I fly to Peru, to the Tambopata Reserved Zone. This is an organised trip to see the rain forest rather than a specialist dragonfly trip, but I hope to see many odonates even though I am sure I will be able to identify very few, if any, of them (but I am taking a camera). In July I will probably be attending a conference in Orlando, Florida and hope to spend a couple of days afterwards looking for dragonflies in the vicinity (my activities in the States are always hampered by the fact that I don't drive) before heading to Mexico to see some friends and hopefully visit Chiapas (and see more dragonflies).

Dave Goddard (UK): Dave regularly leads walks during the summer and this year is planning to include an April pond dipping venture among his Bennerley Outdoor Meetings (see previous numbers of AGRION) which I am sure will be a great success. (*I know a number of members organize similar activities [Roy Beckemeyer is one, Mike Parr another] and I would be glad to hear about them. It all helps to show that WDA's aim of spreading interest and knowledge of odonates to a wider section of the public, is being actively carried out. Editor)*

Norman Moore (UK). Philip Corbet records that "Norman received three prestigious awards in June 2002 for his long and distinguished contributions to nature conservation. At the Annual General Meeting of the Royal Entomological Society he was made an Honorary Fellow of the Society, a rare honour, and he became the first recipient of the Marsh Entomology Award for Insect Conservation, which is administered by the Society. The latter is made for "contributions to excellence in the broad field of insect conservation." These two awards will give wide pleasure among entomologists and odonatologists who have been familiar for many years with Norman's outstanding accomplishments and leadership in this important field, including, memorably, his responsibility, while at Monks Wood Experimental Station, for the Toxic Chemicals and Wildlife research team that established the causal link between organochlorine pesticides and the decline in reproductive success among predatory birds; and all odonatologists are aware of his lasting contribution to our understanding of dragonfly territoriality and as Chairman of the IUCN Odonata Specialist Group.

"A week after he was honoured by the Royal Entomological Society, Norman was awarded the The Stamford Raffles Award for 2001 by Zoological Society of London "for his outstanding contribution to conservation." Norman is delighted, both with the recognition this award gives to nature conservation and with the hardware that accompanied it – a bronze sculpture of a Black Rhinoceros by Anita Mandl. The sculpture was so heavy that Norman and Janet were obliged to get a taxi to convey it from the Zoo to King's Cross Station!"

Ronnie Silsby (UK**)** died on June 10th and is so sadly missed by Jill and his many many friends in WDA. R.I.P.

Alex Twyford (UK). Alex has been a member of the British Dragonfly Society since he was twelve years old. He is now, three years later, a student member of the WDA and he gets a very special welcome! At present he is working on a statistical evaluation of the evolution of dragonfly wingspan as part of his GCSE Statistics course. He has two other projects: a website for the dragonflies of Berkshire (hopefully published in early March) and a 4x3 foot painting of *Sympetrum sanguineum.* **He asks if anyone has data on dragonfly weight – exceptionally scarce data as he knows full well! He would be very grateful for any help.**

Donations to WDA Funds – Mike Parr

It has occurred to me that a good way to raise funds for support of our Conservation and Fund Committee is to request donations when one gives lectures, talks or demonstrations to various organisations. I have recently given talks on dragonflies to the Parkinson's Disease Group at Yeovil Hospital, the Somerset Wildlife Trust and the Crewkerne Rotary Club, and these have all been happy to make donations to the WDA. I explain that WDA is a charity and that we help to support financially deserving research work involving conservation and dragonfly biology. May I

therefore suggest that all WDA members consider this approach to funding whenever they agree to give talks. If we could all do this, a very useful sum could accumulate each year.

NOMINATIONS TO BOARD OF TRUSTEES

In accordance with our Constitution & Bylaws all members of the Board of Trustees (apart from the President-elect) resign at the end of the Biennial General Meeting following that at which they took up their posts - but (apart from the President) are eligible for re-election. The election of a new Board must be completed prior to the BGM and nominations are therefore required now. It should be noted that Mike May will, according to the Constitution, fill the position of President of the Association for the following term. Philip Corbet's term as President will be over. Robert Ketelaar has resigned, his responsibility on the Board as Chairman of the Conservation Fund Committee having been taken over by Frank Suhling..

The Board's nomination for President-Elect is Prof. Dr Hidenori Ubukata. He has been proposed and seconded and has expressed willingness to stand. Should you wish to nominate someone other than Hidenori-san for this post, or any other member as a Trustee, please complete a nomination form to be found at the end of this Newsletter.

MEMBERS' REMINISCENCES

Waterside Reminiscences – Philip Corbet

When during the 1950s I was employed as a zoologist by the East African Freshwater Fisheries Organization at Jinja, Uganda, I used to visit many inland lakes and rivers in connection with my research. Whenever possible, which was often, I took the opportunity to collect final-stadium exuviae, an activity that gave me great pleasure. What a gift to the odonatologist exuviae are! They provide unequivocal evidence of successful larval development in a habitat of course, but they also offer the investigator a sporting chance of being able to identify them because traditionally it is the final-stadium larva of any species that first becomes known. Added to this is the possibility of inferring the sex ratio at emergence from large collections and also the sheer pleasure of handling and examining these wonderful exemplars of the diversity of larval size and form. In the latter regard, I found some of the burrowing gomphids especially exciting to find and examine. Genera such as *Gomphidia, Ictinogomphus, Leptinogomphus, Phyllogomphus* and the improbable *Neurogomphus* contributed disproportionately to my rich store of reminiscences. Although I obtained several exuviae of *Neurogomphus* over the years, it was only long after I had left East Africa that I learnt of its identity. The closest I ever came to identifying it while I was working in Uganda was when (by extraordinary good fortune) I found a damaged final-stadium larva in an advanced state of metamorphosis inside a fish stomach. The wings had already developed some venation within the larval wing sheaths and so I thought that the end of my quest might be in sight. I sent the specimen to Elliot Pinhey, who was working at the Coryndon Museum, Nairobi at the time and asked him whether he could assign it to a species or genus. He returned it to me without a name (although he offered *Lestinogomphus africanus* Fraser 1926 as a possibility) and with the request that I try to send him specimens in better condition in future! The larva is the most extreme example of a deep burrower known: the body is cylindrical, the legs fossorial and short, and the siphon is about 20 mm long, i.e. about one third of the total body length. I do not know who finally established the identity of this larva but it was probably Roger Cammaerts of the Universite Libre de Bruxells who is presently revising the genus. I was so impressed by the shape and mystery of this larva that I illustrated it in my 1962 book (on page 71), emphasising that the drawing had been made with a camera lucida so that no one would think I might have exaggerated the length of the siphon; and I named it "*Lestinogomphus africanus* (supposition)"

Collecting exuviae, though always rewarding, was not invariably fun. The undersides of old wooden piers projecting into lakes were fruitful sources of exuviae, and I often manoeuvred a dinghy beneath such piers, standing up to scan the old cobweb-ridden woodwork more closely. This often put me in close and unwelcome contact with colonies of solitary wasps, which liked to nest in such situations. My posture, as I stood uneasily upright in a wayward dinghy, did not equip me for the rapid escape that was often required. So some of the exuviae I collected were hard won and not always in pristine condition when they came to be preserved.

Vivid memories of a pleasurable kind derived from finding exuviae of sand-dwelling gomphids, such as *Crenigomphus* and *Paragomphus*, on ridges of flotsam along beaches of Lake Albert. The densities of exuviae there were remarkable, sometimes exceeding 90 per square metre. This finding was a clear invitation to visit the beach at night to watch emergence in progress, and this I was able to do on several occasions, cementing my rich memories of the wonderful pastime of exuviae-collecting in the Tropics.

Reminiscences of Oxygastra curtisii– René Hoess

In 1981 when I was a boy and I had just started with dragonflies, I visited Monte Bré above Lake Lugano in Ticino, Switzerland. Near the summit I witnessed some Corduliids flying in a clearing, but was not able to determine them. About ten years later I got some wings of *Somatochlora metallica* that a friend found at the foot of the same mountain

in a village lying on the shore of the lake. (*S. metallica* and *Oxygastra curtisii* are both known to breed in the lake.) Several years later, I finally found a citation that De Beaumont had found *O. curtisi* in 1944 on the slopes of Monte Bré. In 2001 I wanted to check which species it was that I fondly remembered seeing 20 years before and again took the funicular to the mountain's top. This time I was able to catch some specimens and all were *Oxygastra*. Among several individuals of both sexes that were feeding in flight about 5m above the ground I saw a male searching for and finally finding a female willing to mate with him. The couple was more than 400m above the lake to which the female would fly in order to lay her eggs. A year earlier Bernhard Herren and I spent a few days on the Italian side of the lake. I was anxious to show him how I collected larvae of *Onychogomphus forcipatus* in a lake in central Switzerland a few weeks earlier and after checking in at the inn we were on the go. After five to ten minutes turning over rocks in the shallow water, I shooed away three crayfish and picked up two larvae of *Oxygastra* with signs of metamorphosis.

Aeshna Attacks Dog! - Mike Parr

Female *Aeshna cyanea* are renowned for their oviposition, or attempted oviposition in manifestly unsuitable sites. On the morning of 12 September, 2001, I observed one of these dragonflies placing numerous eggs in dry moss on a low south-west facing stone wall about one metre from my garden pond. Periodically it flew around the pond as if prospecting for suitable sites, but returned to the same moss several times. It seemed most unlikely to me that any emerging larvae would be able to reach the water, even if the moss became moist enough to allow development of the eggs. The insect then transferred its attentions to cracks in between stone paving and concrete around the pond's edge, but it was not clear whether any eggs were actually laid there.

It then continued flying low around the pond margins and over the water surface but consistently ignored apparently suitable objects for oviposition, such as dead sticks, rotting wood, waterlily stems and leaves, etc. At this time, my dog Oscar, a beagle, was curled up asleep at the pond's margin. The *Aeshna* alighted on the dog's rump and, to my astonishment, carried out numerous probing movements with its abdomen into his short fur, for approximately 15 seconds. The dog's only response was simply to lift his head and study at close quarters the large insect abusing him; this would suggest perhaps that the ovipositor did not pierce the skin. However, since Oscar never flinches when he has his annual booster innoculations, maybe the old adage "where there's no sense there's no feeling" applies. Examination of the area where the *Aeshna* had been probing the dog's coat failed to reveal any eggs. When the dragonfly ceased this bizarre behaviour it flew away and Oscar resumed his sleep. I am at a loss to explain the apparently anomalous behaviours which resulted in wastage of eggs and expenditure of energy and time for no obvious gain, in addition to the risk of predation by the dog.

Pantala and the Goat Herdsman – *Reinhard Jödicke*

Pantala is a globetrotter and appears in all the warm places on earth, excluding Europe. To meet it, a European is forced to become a globetrotter himself. During a trip to the foothills of the Turkish Taurus, somewhere in a dried up riverbed between Cleopatra's swimming bay and the ruins of a mediaeval caravanserai, I saw *Pantala* for the first time. Close enough to identify it at once, but never close enough to catch it. My last overhasty stroke with the net finally chased it away. *Pantala* remained a phantom.

Eight months later I got my second chance when I tried to reach a reservoir at the foothills of the Moroccan Antiatlas. After three hours drive across the desert, two of them along tarmac and the third over an 'adventurous' track, I suddenly came face to face with a lake. The distinction between water and desert could not have been more unreal. But at that moment it was not the landscape that captivated me – I was instantly fascinated by the sight of an enormous number of dragonflies. Everywhere along the shore dragonflies were on the wing, and it was an illustrious species assemblage there at the fringe of the Sahara. What made me most enthusiastic was the presence of the cosmopolitan *Pantala*. Several tandem pairs, in dipping flight, distributed eggs on the surface of the water and an exciting thought flashed across my mind: *Pantala* has never been recorded in Morocco before. I felt euphoric and, at the same time, highly focused. I became a hunter.

This was my chance! I had to document my observation; I needed at least one voucher specimen. A well-aimed stroke with my net: missed! Immediately afterwards two, three more attempts, but *Pantala* was always faster than I. I got annoyed about my clumsiness, all the more because I suddenly noticed that a herdsman, as he watered his goats, was watching me. His attention was poison for my skill with the net and I felt awfully inhibited beneath his gaze. He was not only curious, but also ready to help. He came and stood beside me and called my attention to each dragonfly that passed close by. This only disturbed me, since I did not intend to capture the big *Anax*, but exclusively *Pantala*. Trying to do justice to his sympathy, I explained with many gestures that I was interested only in just one species: *Pantala*.

Fortunately the uncontrolled goats had dispersed so far over the terrain that the herdsman had to return to his herd. I felt great relief at being alone again, with only my dragonflies for company. But the herdsman's absence did not help: I still could not catch *Pantala*.

After a while I suddenly felt that I was not alone anymore. I heard a person approaching and recognized my herdsman who, without his goats, came trotting up to me. Annoyance arose in me; I just wanted to accuse him of being the cause of my failure with the net, when I saw that he was bringing something to me. He stretched out a clenched fist to me and opened his fingers. In the hollow of his hand was a dragonfly, without head and smeared with mud, but it was *Pantala*! Totally taken aback, I received his present. He understood well my questioning eyes and was anxious to demonstrate how he had formed a clod from the wet mud of the shore. So this was the fate of *Pantala*: the herdsman had hit it with a well-aimed shot!

Stunned I stared at him. I, with my long-standing experience and with a net, and he, with dirty hands and shining eyes. Suddenly I felt friendship, took him in my arms and hugged him. Maybe this embarrassed him, since he freed himself and ran back to his herd. I was left behind, somewhat confused, but overjoyed with my headless *Pantala*.

Original 'Pantala und der Ziegenhirt' by Reinhard Jödicke, published 1 March 1998 in *Hagenia* 15: 18-19; translated with the help of Dorothy Gennard.

Mangrove – Viola Clausnitzer

In October 2001 I visited the Jozani Forest, which is the last remaining natural forest patch of the otherwise over-exploited island Zanzibar, Tanzania. As usual there were unexpected species, e.g. masses of *Teinobasis*, and species I was sure to find, but did not, e.g. *Gynacantha*. Finally I gave up and decided to leave the forest and visit a catwalk leading into the vast Mangrove forests bordering the southern side of the island. Busy teasing mudskippers and fiddler crabs and not giving a thought to crepuscular dragonflies I suddenly got a glimpse of a *Gynacantha* female manoeuvring through the dense mangrove. The animal was busy hunting, only resting briefly from time to time and of course it was useless to even try to chase it in the bubbling mangrove forest.

My First Petalura – Jan Taylor

It is hard to beat early "first" experiences, especially such as in my schooldays when every new dragonfly found gave me a thrill. Perhaps the most memorable were catching my first and only specimen of *Somatochlora metallica*, and of stumbling on a colony of *Leucorrhinia dubia* around an acid swamp near the RHS Gardens at Wisley (now under the M25, Jill tells me) or when I came across Norman Moore's *Anax imperator* bomb-craters at Studland in that magical summer of 1947.

In later life, in Western Australia, the occasion that takes pride of place is the day I found my first *Petalura hesperia*. I had been looking for this huge dragonfly over many years without success – going to breeding sites found by Tony Watson and looking for large dragonflies "hawking" as he described. In December 1988 I set aside a week to search for it in a number of locations in the south-west. Down south I had no success, so came back through the forest near Dwellingup, stopping at each likely spot. At one promising site I walked out from the gravel road into an open area and there, high above my head I briefly saw my first *Petalura* making a short flight before alighting about seven metres up in a tree. I could see its petal-like anal appendages; so it was a male. There it stayed, tantalisingly out of reach and inactive for as long as I cared to stay. Eventually tiring, I decided to look for others and soon came across a female – settled in reach this time. Her wings were closed over her thorax and shining, so she was presumably teneral. I could catch this one! So I gently placed the net in a position where she could have no escape, readied myself and gave the sort of energetic swipe she could not possibly avoid. Imagine my consternation looking into the net when I found nothing but a few twigs! I looked back to where she had been – and there she was, still clinging to the branch as if nothing had happened! "Well", I said to myself, "if she is not going to fly with that treatment, she will not for anything", so I bent the branch down and plucked her off with my hands – she was clinging to the branch, like a stag beetle with very strong legs and sharp claws.

Subsequent experience has proved that these dragonflies, although large, are very hard to see, and that I had probably walked unaware past many during my years of looking. They spend most of the time resting, only occasionally flying to catch a passing insect, or darting off in an erratic manner with their brown bodies and shadowy wings blending into the background.

My next target is *Lathrocordulia metallica* – no success so far, but I now have a list of known breeding sites, thanks to Karen Sutcliffe who is working on the conservation status of Odonata, Plecoptera and Trichoptera in the south-west of Western Australia.

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Remembering Dinner Table & Other Backyard Records – Matti Hämäläinen

There is a total of 187, 888 lakes and ponds (larger than 500 square metres) in Finland, which has about the same land area as the British Isles. No one has yet counted or even estimated the number of smaller ponds, gravel pits, bog holes, wetlands, ditches, streams, rivers and other suitable dragonfly habitats but they too are extremely numerous. Consequently the total biomass of dragonflies in Finland must be large, although the species diversity is somewhat low (52 spp.). The total of 50 known spp. was reached by 1933; so the chances of adding a new species to our national list are not high.

Considering the extent of available habitats in my country, the question arises of where and how can one find such a novelty among the Finnish dragonfly fauna? The answer is simple - just follow the following three rules:

Rule one: Go to the pond (or other available dragonfly habitat) nearest to your home.
Rule two: Use your net immediately you see something even remotely strange;
Rule three: If she (or he) is present follow the instructions given by your wife (or husband) to the letter.
It is important that you follow all these rules carefully - I nearly missed "**a new record**" through a failure to do so.
At noon, on 10th July 1984 I went to the pond nearest to my home - at that time in Espoo. The small pond, constructed in the municipal park during the previous autumn, was only 200 m away. Among the half dozen species of dragonflies present I noticed a single male *Ischnura*, but did not bother to use my net to catch it, although the habitat was not typical for *I. elegans* in our country. Anyway, I left this damselfly undisturbed and returned home. Luckily I returned, with my wife, to the pond at 4.30 pm on the same day, just to show her the colourful *Libellula depressa* males circling around the pond. I soon noticed that the *Ischnura* male was still there but I am not sure whether or not I would have collected it this time, had I again been alone. However, since my wife (then a novice in dragonfly-watching) pointed to it and told me to "take it", I used my net. Only later that evening, at home, did I look at the specimen more carefully – it was *Ischnura pumilio*, **new to Finland**! No further specimens were ever found at that pond, but later Pekka Valtonen spotted a single *I. pumilio* in Åland Islands and recently Sami Karjålåinen found a population in South-eastern Finland. It seems that this species is now well established here.

In the tropics dragonfly novelties, including new species, may lurk even nearer to one's lodging. Late in the afternoon on 13th June 1984, just a few weeks before the *pumilio* incident, tired from the field work, I was resting on the veranda of our bungalow at the headquarters of Khao Yai National Park in **Thailand**. Water pouring down from the roof had formed a tiny pit in front of the veranda. I saw a female corduliid circling around the pit and went down to catch it. Next morning a male of the same species was seen at exactly the same spot – this I netted directly from the veranda. Later, the specimens proved to represent **a totally new species** – described by me as *Idionyx thailandica* in 1985.
In late April 1995 I was staying in a guesthouse of Krau Wildlife Reserve in Pahang, Peninsular Malaysia. One evening, at 9.40 pm a female gomphid landed on the lighted wall of the house – *Burmagomphus arthuri*, **a new record for Peninsular Malaysia**. On 24 January 1996 I was again in the same guesthouse. While enjoying a solitary dinner at 7.15 pm, an uninvited, but welcome, female visitor came indoors from the open side door and landed on the ceiling above the dinner table. It was *Zyxomma obtusum* – **another new record for Peninsular Malaysia**. I was lucky enough to catch the same species in another locality within the Krau Reserve on 28 November 1996, this time 20m from the bungalow where I stayed with my Norwegian colleague, Hans Olsvik. Earlier that year, in late October and early November, Hans and I had spent a week at Phu Kradung Mountain in Northeast Thailand, accompanied by our Thai colleague Sirichai Divasiri. Need I say that we also found a number of **new species to Thailand** there - among them *Gynacantha incisura*. If I remember correctly, one of the Gynacanthas circling our bungalow just before sunset, and netted by Hans, was *incisura,* although most of them were caught on a slope 100-200 m away.
Maybe I have missed some similar records, but this surely is enough to prove the old saying is correct: "We often do not see what we have in our own backyard?"

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Memories of Happy Times at Dragonfly Symposia – Jill Silsby

I like to think back over the years to some of the things I have enjoyed so much at past Symposia
1985 was the first one I attended. It was held in Paris in the Museum National d'Histoire Naturelle. I was a new girl, new to dragonflies and new to SIO and its members. The two Margarets were there (Westfall and Gambles) as was dear Janni Vroom and I felt privileged to be offered their friendship. I remember Eberhard Schmidt predicting that *Erythromma viridulum* would be found in the UK before long (he was right, it is now breeding here); I remember the enthusiasm shown by the very young Adolfo Cordero; and I remember the dragonfly-decorated dress that Marianne Kiauta wore on the night of the Banquet. The Post Symposium tour was memorable for Jean Legrand giving us ladies 'piggyback rides' over a very muddy bridge to reach the other side of a swollen stream. La Brenne and Le Pinail were two of the prolific dragonfly sites we visited - and I remember learning how to wield a dragonfly net.
1988. This was held in January to accommodate the optimal odonate flying periods and it is memorable for many reasons. First, due to dreadful weather conditions in the UK, Ronnie and I arrived at Bombay 36 hours late; which was extremely frustrating because we missed our connection to Madurai and perforce were held up for a further 24 hours. It did have one good result though because Vicky and Rob Arnold shared the experience and a friendship was forged which has given us much pleasure over the past 14 years. It will also be remembered for Dr Mathavan's success in obtaining sponsors: we enjoyed splendid midday meals almost every day, courtesy of one or other of the local firms' generosity
1989 saw us in Tennessee where we were all put up in dormitories on campus. Sharing the accommodation was a group of young trainee cheerleaders who seemed to practice the same six bars over and over again. We had a magical visit to Bays Mountain Park and I remember Carlo Utzeri waist deep in the lake trying to gather the swift flying

Epitheca princeps into his net. Dan Johnson divided us into two groups – catchers and photographers – so that one did not interfere with the other and this worked very well indeed. And I remember my first sight of a petalurid – perched and photographed on Dan's jeans.

1991. Italy was notable for olives and exceptionally free-flowing wine (Carlo had not relished the alcohol-free rules of campus life in Tennessee). I will never forget the magic of our Banquet held in Trevi Town Square – tables were laid around the square and were lit by candles and the moon. Many local inhabitants joined us and all of them seemed to be related to the Utzeri family. Sessions were held in the local cloisters and coffee and buns were consumed in a small, enclosed garden. My *Dragonflies of the World* had been conceived a few months previously and the embryo was acclaimed over coffee and buns! I received countless offers of help and look back in gratitude to those halcyon days. Ten years later the book was published (in June 2001).

1993. Kiyoshi Inoue organised the Japanese Symposium in Osaka and a wonderful job he made of it. I remember it for many things, the swishing of innumerable long, long nets being one and the "auctions" held each evening after our meal (how GOOD the sushi was!) for another. On these occasions beautifully set specimens were distributed to those who 'bid' for them. Very different evening entertainment included a troop of drummers, a musical duo and a male voice choir (Kiyoshi-san being a member). Two things stick in my mind from the post-symposium tour: one was rising from my bed at 04.30 to watch hundreds of crepuscular aeshnids hawking for insects - those long, long nets were as active as ever, even though the rain was pouring down; the other was emerging from a thickly vegetated pond at the Kawa-kami-Daira marsh, with both my legs adorned with fat, well-fed leeches – UGH!! Tony Watson attended this symposium and, sadly, it was the last time most of us were to see him.

1999 & 2001 were memorable for the sense of friendship and brotherhood that was evident in all that we did – at work and play! They made a dream come true and – I feel certain that there will be MANY more things that will become **treasured memories** in the years to come.

Welcome to New Members

China	Eric Gibert	24 Kwong Tower, Flat 10H, Happy Valley, Hong Kong
France	Francois Meurgey	2 ru Bossuet, F-4400 Nantes
Japan	Prof. Dr Shigeo Eda	Sawamura 3-4-25, Matsumoto City, Nagano Prefecture, 390-0877
	Haruo Kurashina	Oohata 18-5, Beppu City, Oita Pref., 874-0888
	Masato Nakahara	6-6 Mizugae 6-chome, Saga City, 840-0054
	Dr Yoshitaka Tsubaki	Natinal Institute for Environmental Studies, Onogawa 16-2, Tsukuba, 305-0053
	Sadayuki Ugai	1-5-19-403, Saiwai-cho, Kawaguchi City, Saitama Pref., 332-0016
Spain	Antonio Assiego,	Apartado 644, E-29080 Malaga
U.K.	Allan Brandon	Dundurn, 3a Park Rd., Plumtree, Notts NG12 5LX
	Dr Ian Harvey	School of Biological Sciences, Nicholson Building, Univ. of Liverpool, L69 3QS
	Dr Pam Taylor	Decoy Farm, Decoy Road, Potter Heigham, Norfolk. NR29 5LV

It is with regret that we announce the death of Joachim Werzinger in December 2001. We are glad that Sabina remains a member and offer her our sincere condolences.

Extract from The New Indian Express (24 January 2002)

Bug eyes will give man sight on Mars – received from Reuters in Sydney

Aircraft weighing as little as a chocolate bar could one day be darting over the surface of Mars with the agility of dragonflies and the eyes of beetles.

Australia-based scientists say they have developed navigational & flight control devices based on research into several types of insects.The resulting sensors are so small they can be placed on "micro-flyers" weighing just 75 grams. The team of researchers at the Australian National University won over NASA during a test flight of a prototype last week and the US space agency has agreed to help finance further work. The aim is to use the technology on a 2007 mission to the red planet to explore the rock structure of the Valles Marineris, the solar system's most extensive canyon, more than 3,000km long and eight km deep.

'Despite their small brains, insects such as dragonflies are capable of fast and precise aerial manoeuvres that require stability and collision avoidance' Javaan Singh Chahl, of the ANU's Biorobotic Vision Laboratory, said on Tuesday. 'Large structures such as Valles Marineris, more than ten times the Grand Canyon in every dimension, can only be observed from inside. An aircraft should do this' he told Reuters. The scientists have developed an electronic model of ocelli, sets of simple eyes on the heads of dragonflies, bees, locusts and other insects. The ocelli measure the distribution of ultraviolet and green light to maintain level flight – an answer to the problem of stable flight in the ultra-thin atmosphere of Mars.

The scientists also programmed computers to avoid collisions like bees do – using the apparent speed of objects to determine distance. 'The ocelli need weigh no more than a few hundred milligrams, and the collision-avoidance sensor could weigh in the order of five grams' Chahl said. 'These small sensors would allow many small aircraft, as light as 75 grams, to be carried to the surface of Mars.' Bees may also provide a solution for navigating on Mars, where there is no GPS network or magnetic field to tell one pole from another. Bees use a combination of polarization patterns in the sky, landmarks and distance traveled to navigate.

Chahl said they hoped to include a functioning navigational sensor in their next test model, due by 2003, with a final test of their miniature aircraft to take place the following year.

Thanks to Peter and Gillian Mill for sending me this cutting for inclusion in AGRION - Editor.

REVIEW

Suomen sudenkorennot [The dragonflies of Finland] - Sami Karjålåinen. March 2002. Kustannusosakeyhtiö Tammi [Tammi Publishers], Helsinki. ISBN: 951-31-2212-3. Hardcover, size 21 x 26 cm, 222 pp. - Author's address: Tyrskykuja 3 B 15, FIN-02320 Espoo, Finland. For the book's own homepage, see www.dragonflies.korento.net Publisher's home page: www.tammi.net

Sami Karjalainen's book is no ordinary national dragonfly handbook. Both author and publisher have sought to produce an illustrated natural history of the highest quality to appeal to a wide audience beyond professional entomologists and insect hobbyists. The graphic layout, print quality and standard of photographs in the book are stunning. For anyone ho admires adult dragonflies for their beauty this book is a must. Do not let the Finnish language discourage you from obtaining a copy. Brief instructions in English (p.15) help to interpret data given in the specific accounts. For each species the distribution and flight season are presented graphically and naturally there is no barrier to enjoying the 220 colour photographs, some 80 of them superbly presented as full-page images. Many of them (e.g. *Erythromma najas* male on p.88 and *Brachytron pratense* pair in copula on p.106) undoubtedly rank among the sharpest dragonfly photos ever printed in a book – you can see every hair in them! Other especially beautiful full-page images include a *Cordulegaster boltonii* male in its stream habitat (p.8), a male *Aeshna osiliensis* eating *Libellula quadrimaculata* (p.26), an *Aeshna crenata* female laying eggs deep in the water (p.104), an intense blue *Aeshna crenata* male resting on the white trunk of a birch (p.110) and a female *Epitheca bimaculata* resting in foliage (p.140). I could mention many more.

The first 60 pages provide a broad general introduction to dragonfly life. In the main part of the book a double page spread is reserved for each of the 52 local species. On the left page is one full page photo and on the right 1-2 smaller photos, distribution map, diagrams showing flight season and size and a brief text giving identification characters, habitats and habits. Only adult dragonflies are treated and illustrated in the specific accounts; there is however a brief general chapter on larvae on pp.40-44 with some photographs. With a few exceptions, photographs have been taken by the author. The photographs of adult dragonflies depict them in their natural settings and only the images of *Somatochlora sahlbergi* were taken from posed specimens. Those who attended Gällivare symposium last year will surely understand the reason for this exception! Five additional species occurring in nearby areas in Estonia and Sweden are briefly presented on pp.184-185. Other topics covered at the end of book include: the origin of scientific names, dragonflies in folklore and arts and instructions for photographers and collectors. B/w drawings on pp.210-214 provide additional help in identifying the species.

Whereas the national lepidopterological society in Finland (population only 5.2 million) has about 1000 members), the number of dragonfly enthusiasts here has been rather small. The main reason for this discrepancy must be the fact that the previous handbook on Finnish dragonflies – by K.J. Valle in 1952 – was already out of print 35 years ago. Sami Karjålåinen's book has received much publicity in the Finnish media. Undoubtedly, the 4000 copies printed will greatly increase the number of local odonatists over the next few years.

The homepage of the book (see above) provides information where and how to purchase a copy outside Finland. In Finland the price varies from EUR 42 to EUR 49 in different bookshops. *Matti Hämäläinen*

W.D.A. CODE of PRACTICE for COLLECTING DRAGONFLIES

Preamble

A policy is needed to reconcile the need to collect and preserve specimens of dragonflies with the need for the conservation of species and habitats. There is an apparent conflict between, on the one hand, the requirement that species recorders, educators and scientists be able to examine and re-examine preserved specimens from certain taxa and certain localities in the light of future knowledge and, on the other hand, the general distaste among conservationists and others for killing any organism, either on ethical grounds or because of a perception that to do so might endanger the viability of a local population.

At a meeting on 22 July 2001, the Trustees of WDA decided to produce a code of practice for members of WDA who need to collect dragonflies. The following text is the result. David Fitch was generous with advice during its preparation.

The Code

The provisions in this code arise logically from the application of four principles, as outlined below. By formulating the code, WDA confirms its commitment to these principles. In the code the word 'dragonfly' means a member of the order

Odonata. The code is recommended as best practice by the Board of the Worldwide Dragonfly Association and will be subject to review at least once every five years. (Next review by February 2007.)

Principle 1. To respect life, in the form of species, communities and habitats.

1.1. Unless needed for education or scientific research, no larval or adult dragonfly should be killed, either as a sequel to capture or through habitat destruction. Of these two types of intervention, the second is by far the more serious as a threat to the continuity of dragonfly populations.
1.2 Live dragonflies should only be held captive for good scientific reasons, under conditions that do not expose them to avoidable stress, and for no longer than necessary.
1.3 Specimens of dragonflies that have been collected should not be offered for sale.
1.4 Recognising that sometimes scientific study will require a series of specimens to be secured, no more specimens should be collected than are needed. The collector should always exercise discrimination and restraint and proceed in a spirit consistent with the principles espoused in the code.
1.5 The habitat in which specimens are being collected should be damaged as little as possible.
1.6 Specimens of one species should not be collected in large numbers from the same locality in the same season.

2. To comply with existing regulations

2.1 Before any dragonfly is collected, or collected material exported from its country of origin, all existing, relevant regulations, including the common law of the country, should have been complied with. Such regulations may include permission: to enter land, to collect certain species, to collect biological material of any kind, and to export or retain it.
2.2 When the collecting site is a nature reserve or a site of known interest to conservationists, a list of species collected should be supplied in due course to the owner or managing authority, whether or not to do so is a requirement when permission is granted.

3. To respect the need for scientific rigour

3.1 Sometimes larval or adult dragonflies have to be collected and preserved as voucher specimens in order to further odonatology through education and scientific research, including the validation of specific identity. Sound taxonomy is central to odonatology and sound taxonomy almost invariably depends on the existence of properly annotated material. All voucher specimens should be adequately preserved and labelled, and thereafter properly curated. Where feasible, and in due course, they should be deposited in a suitable museum or institution or, if retained in a private working collection, their whereabouts should be made known to odonatologists generally.

4. To show, and expect to receive, tolerance of differing attitudes towards collecting biological material.

4.1 If a WDA member who is collecting in compliance with this code encounters overt disapproval from anyone at the collecting site, that member should respond to that disapproval by explaining the need for voucher material and by citing the authority that legitimises the action of trying to obtain it.
4.2 It is recommended that WDA members conduct their activities in a manner consistent with this Code, and, at their discretion, report to the WDA Board any activity inconsistent with the Code. WDA unequivocally endorses the need to collect voucher specimens of dragonflies for the furtherance of odonatology through scientific research. WDA unequivocally deplores the behaviour of anyone who tries to obstruct, intimidate or slander anyone trying to collect dragonflies while complying with this WDA Code of Practice.

This Code was ratified by the WDA Board of Trustees on 26th February 2002

Version of 4 February 2002

3rd WDA INTERNATIONAL SYMPOSIUM of ODONAT0LOGY

The 3rd WDA International Symposium of Odonatology will be held in the historic town of Beechworth, Australia, **8-13 January 2003**. The organiser wishes to welcome all people with an interest in dragonflies, whether professionals or amateurs, collectors, photographers, or anyone with a general interest in nature and conservation.

The symposium will be held at the historic May Day Hills Campus of La Trobe University, 1km from the town centre of Beechworth. The University has created a unique special educational environment amongst the heritage gardens and historic buildings. Campus accommodation ranges from International Hotel rooms & Conference Hotel rooms, to shared cottages & backpack accommodation. The scientific programme will be conducted in the conference hall of the Campus Information & Conference Centre.

Beechworth, is in N-E Victoria, between the two major Australian capital cities, Sydney (600 km) and Melbourne (270 km). Beechworth nestles in the foothills of the Australian Alps, 30 km S of Albury-Wodonga and is one of the best preserved and most beautiful gold towns. It is now classified as a "Notable" heritage town with over 30 buildings on the National Trust's register, with many of the buildings dating back to the 1860s. It still retains the basic character and appearance it had developed by the 1880s. Presently, it has a population of 3,300 and has become a popular tourist town. There are many interesting attractions for tourists, the most notable being the fine government buildings built of local honey-coloured granite in the 1850s, the Harness and Carriage Museum, Burke Museum, Ned Kelly's cell, and Beechworth Gaol. The Beechworth Historical Park hosts spectacular scenery, flora and fauna and many historical reminders of the gold mining days. The park can be explored from the Gorge and Woolshed Falls tracks.

There will be three field trips**. Field Trip 1** (8th January 2003) will be a sight-seeing and collecting bus tour of the Beechworth Historic Park in the morning and an afternoon visit to Beechworth's most notable historic buildings.

Mid Symposium Field Trip (11th Jan 2003) will follow the Kiewa River from its source in the beautiful Snow Gum ridges of the Bogong High Plains down to the lush farming valley where it joins the mighty River Murray. We will travel 100 km, over an altitudinal decline of 1400m, and encounter some 25 species of dragonflies ecologically partitioned along the river. **Post Symposium Field Trip (14-18th January 2003)** will combine dragonfly collecting with visits to cultural and heritage sites, and the wilderness areas of several National Parks. Highlights will include visiting the Yea area and viewing the world's most primitive damselfly, *Hemiphlebia mirabilis*. We will also search for the Gondwanan dragonflies, *Austropetalia tonyana*, and *Telephlebia brevicauda*, marvel at the brilliant rock-dwelling *Diphlebia lestoides* and *D. nymphoides*, and hunt for the other 30 plus Victorian species which will be on the wing. Historic treats will include a visit to Glenrown, the site of the capture of the famous bushranger, Ned Kelly and his gang. We will also visit the famous Healesville Wildlife Sanctuary, where you will see a range of native animals (Koala, Quoll, Platypus) and native birds (lyrebirds, parrots) in natural habitats. Along the way we will visit several National & State Parks with their spectacular scenery, brightly coloured wildflowers, and unique Australian fauna. The Warby Range State Park is famous for its large grass trees, with black trunks and long green skirts, while the Chiltern Park is famous for its Black Iron bark gums, native orchids and koalas. In contrast the Yarra Ranges Park is renowned for its lush tree-fern covered valleys and the Organ Pipes Park for its towering basalt columns resembling the pipes of an organ.

For further information, visit the web site: http://powell.colgate.edu/wda/Australia/Home_page.htm

OR contact the organiser: John Hawking,
Murray Darling Freshwater Research Centre,
Cooperative Research Centre for Freshwater Ecology,
CSIRO Land and Water
P.O. Box 921, Albury, NSW 2640. E-mail: John.Hawking@csiro.au

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BOARD of TRUSTEES

NOMINATION FORM

I (Proposer's name & WDA No.) ……..
wish to nominate the following member for the office of President-elect **/** member of the Board of Trustees (delete one alternative):
NAME & WDA No. of nominee:.....
ADDRESS:……
I (Seconder's name & WDA No.)…….second this nomination.
I (signature of nominee) ……accept this nomination.

Please return this form to the Secretary (Linda Averill, 49 James Road, Kidderminster, Worcs. DY10 4NJ. UK) a.s.a.p. but certainly so that she receives it by 20 August 2002, after which no returned nominations can be registered.