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Editor.

NATIONAL CONSERVATION STRATEGY

Two years ago a World Conservation Strategy was launched, as a result of which the Commonwealth of Australia and all its State Governments set out to develop a Strategy for Australia.

A working party of officials from all levels of Government has co-operated with leaders in key industries and conservation groups to produce a paper "Towards a National Conservation Strategy" which is now available from the Department of Home Affairs and Environment, Canberra, on request. Public comment on this paper is sought before 15 September, 1982.

The ball is now in our court. If we do not study these proposals and make our wishes known to the Government we must share the blame for any shortcomings in the Strategy after it has been adopted. All naturalists are encouraged to play their part in ensuring that their interests are fully protected by making constructive criticisms or endorsement of the proposals now put forward. Please do your part.

SOME NOTICEABLE CHANGES IN THE VEGETATION OF MT. WELLINGTON SINCE THE 1967 BUSHFIRE

by

Ann Ratkowsky and David Ratkowsky

INTRODUCTION

The devastating bushfire of 7th February 1967 destroyed virtually all of the vegetation of the Mt. Wellington Range. We surveyed the range during the two-year period from February 1973 to March 1975, i.e. six to eight years later, to establish a census of the vascular plants present at that time, and to examine whether the fire caused any extinction of plant species or important changes in species abundance. The comparison was made possible by the existence of an earlier survey of the vegetation of Mt. Wellington (Martin 1940). Our results showed that a total of 487 native vascular species occurred in the survey area during the study (Ratkowsky & Ratkowsky 1976), including more than one-third of the native flowering plants of Tasmania. No important changes in the flora were observed between the survey of Martin (1940) and that survey. However, it was noted that certain species of *Richea* and some ferns were making a slow recovery from the effects of the fire.

THE RESURVEY

Because some change in the relative abundance of species is likely to occur with increasing time after the 1967 bushfire, we decided to resurvey the range over the six-month period from the beginning of October 1981 to the end of March 1982, there being an eight-year gap between the ends of the previous and current surveys. The survey area was the same as that shown in Fig. 1 of Ratkowsky & Ratkowsky (1976). The survey area was divided up into eight zones, those being based mainly upon the occurrence of the species of eucalypt, following the approach of Martin (1940). The eight zones are described in detail in Ratkowsky & Ratkowsky (1976), but we present a brief description of these zones, and the altitudinal range in which they occur, in Table 1. As in the previous survey, we used a lower altitude limit of 240 m to correspond approximately to the lower limit of 800 ft used by Martin (1940).

Approximately five visits per week were made to some portion of the survey area during the survey period. Care was taken to try to estimate the change, if any, in abundance of the number of individual plants, bearing in mind that growth since the bushfire has increased the total biomass. It was important, therefore, not to confuse increase in size of a plant with increase in the number of individuals of that species. For example, consider *Senecio brunonis*, Tasmania's largest species of *Senecio*, and a species which, except for its reported occurrences on Mt. Dromedary and Mt. Faulkner, is confined to the Mt. Wellington Range. Individual plants of this species have grown greatly since our last survey, and because the flowers are large and showy, one might think that the species has increased in abundance. However, this species is confined to a rather narrow altitudinal range of ca. 750 – 1100 m and our impression is that its abundance is similar to that in our previous survey.

TABLE 1

Summary of the vegetation zones of the Mt. Wellington Range

Zone	Description	Approximate elevation
1	Treeless upper regions	1220–1270 m
2	Woodlands containing pure stands of <i>Eucalyptus coccifera</i> , and treeless marshlands and grasslands at the same elevations.	1100–1220 m
3a	Woodlands with mixed eucalypt stands, dominant eucalypt <i>E. urnigera</i> , and treeless marshlands and grasslands at the same elevations.	800–1100 m
3b	Wet sclerophyll forests, dominant eucalypt <i>E. delegatensis</i> .	600–800 m
4	Wet sclerophyll forests, dominant eucalypt <i>E. obliqua</i> .	240–670 m
5	Sandstone outcrops such as Snake Plains, The Springs, Sphinx Rock, etc., dominant eucalypt <i>E. johnstonii</i> .	600–750 m
6	Gully communities, permanently wet, with thick undergrowth of <i>Bedfordia salicina</i> and <i>Olearia argophylla</i> .	240–600 m
7	Dry sclerophyll open forests, dominant eucalypts <i>E. pulchella</i> and <i>E. viminalis</i> (on dolerite) or <i>E. tenuiramis</i> (on mudstone).	240–500 m

RESULTS

The 29 species for which we have observed a genuine change in abundance are listed in Table 2. The order in which the species are listed follows that of Ratkowsky & Ratkowsky (1976), that paper also gives the family of each species and the authority for each botanical name. Changes in abundance are indicated in Table 2 either by a plus sign (+) to signify an increase or a minus sign (–) to signify a decrease. A majority of the changes occur in the three uppermost zones. The family having the most species with a significant change in abundance is Epacridaceae, there being three *Richeas*, two *Cyathodes*, a *Pentachondra* and a *Trochocarpa*, all of which show an increase. Two of these species, *Cyathodes straminea* and *Richea gunnii*, were rare previously; *Trochocarpa thymifolia* and *Richea dracophylla* have increased their numbers greatly. Two members of the Proteaceae, *Bellenden montana* (Mountain Rocket) and *Orites acicularis* (Yellow Bush), have increased in the two uppermost zones; in addition, two creeping shrubs, *Exocarpos humifusus* and *Leptospermum rupestre*, have also increased in those zones.

Poranthera microphylla, which was previously present in all middle and lower zones, has now increased its range upwards. In contrast, several species appear to have diminished in the upper zones. These include *Scaevola hookeri*, *Drosera pygmaea*, *Helichrysum hookeri* and *Olearia erubescens*. Several species have diminished in the gully communities of Zone 6, these are *Oxalis corniculata* (Yellow Wood Sorrel), *Coprosma hirtella* (Coffee Berry), *Senecio linearifolius* (Fireweed) and *Asterotrichion discolor*. Of the remaining species in Table 2, *Oxalis lactea* has diminished greatly to the point where it has not been found in the present survey; the legume *Hovea heterophylla*, previously frequent in Zone 7, has also not been located. The only fern showing a significant change in distribution is *Microsorium diversifolium* (Kangaroo Fern), which has increased in the gully communities of Zone 6.

DISCUSSION

The 29 species in Table 2 showing significant changes in abundance are a rather small proportion (6.0%) of the 487 species found in the previous survey. Although the process of change in plant communities is a slow one in general, there are factors at work on Mt. Wellington which tend to retard the process of change. The most important of these is prescribed burning carried out by the city councils. For example, portions of Knocklofty, Tolmans Hill, Mt. Nelson and Chimney Pot Hill have been burned on several occasions since the 1967 bushfire. Fires have not been confined to the lower, drier portions of Mt. Wellington. For example, on 4 January 1976, a severe fire burned across Snake Plains from near the Pipeline Track, destroying considerable vegetation in its path. More recently, during the time span of the present survey, two severe fires, one near Trestle Mtn, and one at Ferntree, destroyed vegetation. Bushfires such as these, whether accidentally or intentionally lit, not only retard the process of change of species abundance, but make it doubtful whether it is possible for this vegetation ever to develop towards a climax community.

LITERATURE CITED

- Martin, D. (1940). The vegetation of Mt. Wellington, Tasmania — the plant communities and a census of the plants. Papers and Proceedings of the Royal Society of Tasmania for 1939, pp. 97 - 124.
- Ratkowsky, D.A. & Ratkowsky, A.V. (1976). Changes in the abundance of the vascular plants of the Mount Wellington Range, Tasmania, following a severe fire. Papers and Proceedings of the Royal Society of Tasmania 110: 63-90.

SOME HUNTSMAN SPIDERS ARE DANGEROUS

R.H. Green

There are numerous species of huntsman spiders belonging to the genus *Olios*, several of which occur in Tasmania. They belong to the family SPARASSIDAE as do the large huntsman spiders sometimes mistakenly called Tarantulas. The bite of a huntsman spider is generally considered to be harmless to humans and though this may be true for some species, others should be treated with caution.

A specimen of *Olios patellatus* was recently brought to the Queen Victoria Museum, Launceston, for identification. A household cat, while playing with it, had been bitten on the lip and in six to eight hours the cat had lapsed into deep unconsciousness. It remained in that state for about 42 hours and after regaining consciousness was weak and abnormally timid for a further three days. Except for a swollen lip, no other signs were noticeable.

Some years ago a youth reported to the Museum that he had been bitten on the fore-arm by a spider, the description of which fitted that of an *Olios* species. No details were recorded at the time but he told of being hospitalised for two days and that an abscess-like wound had developed at the site of the bite necessitating slinging of the arm.

Ramon Mascord in his "Australian Spiders in Colour" 1977 states that 'Two species of *Olios* have been recorded as giving painful and reactive bites to humans'.

Huntsman spiders do not spin webs in which to ensnare their food. They hunt for it and in so doing sometimes enter houses. The larger hairy spiders (those sometimes called Tarantulas) are well known to most people. Members of the genus *Olios* are mostly pale sandy to sandy brown, some even having a greenish hue. They have smooth bodies about 3 cm long and a leg span of about 7 cm. On the under surface of the abdomen is a spectacular shield-like marking and in *O. patellatus* the under surface of the legs is banded with orange and black, and there is blue in the joints of the legs. They become very aggressive when teased.

A RED-TIPPED *PARDALOTUS STRIATUS* AT MAGGS MOUNTAIN

R.H. Green

In the course of general field work and collecting in a woodchip concession area at Maggs Mountain in the Mersey Valley between 8-11 February 1982, eight mist nets were set over varying times to catch birds. Pardalotes *Pardalotus striatus* and *P. punctatus* both appeared abundant and post-breeding congregation of adults and sub-adults were working the eucalypt canopy and shrub layers for food.

In the four days 134 *P. striatus* and 11 *P. punctatus* were netted and examined. All were in various stages of moult and most were sub-adults.

Of interest was one sub-adult *P. striatus* in which the speculum was orange as opposed to bright yellow in all the others. Authors vary in their opinion as to the taxonomic ranking of this form; for example, Slater (1974) affords it full specific status, *P. ornatus*, while Pizzey (1980) considers it merely a race of *P. striatus*. The rare possibility of cross-breeding has been noted by Rounsevell *et al.* (1979) but the two forms are generally restricted to separate breeding zones. That referable to *P. s. ornatus* breeds mostly in the south-east of the Australian mainland and is very rarely found in Tasmania while the *P. s. striatus* form breeds almost exclusively in Tasmania, though it migrates to the south-east of the Australian continent to over-winter.

Rounsevell *et al.* (1979) records the capture, photographing and release of one *P. s. ornatus* at a nesting hole at Gladstone on 25 August 1977, though it is not known if any young were subsequently reared.

The Maggs Mountain bird was retained and prepared as a freeze dried study specimen, reg. no. 1982/2/151, and is the only known Tasmanian taken specimen in collections. The sub-adult plumage of this bird, together with the date of capture, indicate it must have been bred in Tasmania but an assessment of its parental taxonomy was impractical.

References

- PIZZEY, GRAHAM 1980. *A Field Guide to the Birds of Australia*. Sydney. William Collins Sons & Co. Ltd.
- SLATER, PETER 1974. *A Field Guide to Australian Birds. Passerines*. Melbourne. Rigby Ltd.
- ROUNSEVELL, D., N. P. BROTHERS, S. A. BLACKALL, C. RILEY and R. I. WILSON. New and unusual records for Tasmania during 1977. *The Emu* 79, 139-140.

WHERE ARE THE MUSK LORIKEETS AND SWIFT PARROTS?

R.H. Green

The Musk Lorikeet *Glossopsitta concinna* and the Swift Parrot *Lathamus discolor* are usually regular migrants to Tasmania, arriving about September and departing about April. Every year for at least the last ten years post-breeding flocks of adult and immature Musk Lorikeets have visited gardens in central Launceston during January to April, and feed upon ripe plums and pears.

Swift Parrots likewise have been regular visitors to parks and gardens, feeding on nectar from blossoming eucalypts, the seed heads of Silver Birch, ripe fruit, etc.

From spring to autumn, the chattering calls from flocks of both species have regularly announced their presence and their activity has enhanced the observations of birdwatchers.

Alas, this past year, these birds seem to have almost deserted us! I have made enquiries of numerous birdwatchers in and around Launceston and with few exceptions the answers have been the same. Only on rare, isolated occasions have a few birds been seen.

It appears that both species have for some reason been restrained from migrating to Tasmania for the 1981-82 breeding season in anywhere near their usual numbers, which raises the questions: "why", and "where" did they spend the summer?". This is of special interest in the case of the Swift Parrot which is now generally accepted as breeding only in Tasmania. If it found seasonal conditions sufficiently favourable on the Australian mainland to make migration unnecessary, then did it breed there, and where? Perhaps some of the odd old clutches of eggs collected on the Australian mainland and said to be of Swift Parrots are not so doubtful after all.

"FOOT PATTERNING" BY AUSTRALIAN GROUND-THRUSH

L.E. Wall

On 29 April 1982 I observed a pair of Ground-thrushes *Zoothera dauma* feeding on a wet patch of short grass at Kamona, N.E. Tasmania. One bird in particular was using the method of pattering one foot rapidly on the ground while standing on the other to bring worms to the surface where they could be secured for food. It has been suggested that this practice simulates rain, encouraging the worms to come to the surface.

I have only found two references to this practice by the Ground-thrush in the Australian literature. The first was by J.N. Hobbs ("The Emu" 54: 279) in which he reported a similar observation with a Flame Robin, and commented on the thrush's action as an isolated stamp of the foot rather than a repeated pattering or vibration. In the second reference by R.P. Cooper (*The Australian Bird Watcher*, 1:3) the bird is quoted as raising itself onto its toes and rapidly vibrating its body. While the result is the same, there appear to be variations in the practice and comments and observations by others would be welcomed.

WOOD DUCK IN THE JORDAN VALLEY

L.E. Wall

On 31 December 1981 I flushed 14 Wood Ducks from a farm dam at Broadmarsh, this being the first time I had seen these birds in the Jordan Valley. Later on the same afternoon I flushed two adults from the same dam and found that they had 12 ducklings, about half-grown and unable to fly, which scattered among the sags round the dam. One of the adults performed the broken wing trick to divert my attention from the young ones.

I have been told by the property owner, Mr. W.J. Gunn, that the Wood Ducks are still in the area, and that they also nested successfully the previous year, hatching 11 young, two of which were hand-reared by his family.