

The North Queensland Naturalist

The Journal and Magazine of the North Queensland Naturalists' Club
Established 1932

VOL. XXIV

Cairns, 1st November, 1955

No. 113

Significance of the Caudal Appendage of *Acanthophis a. antarcticus*

By W. A. Lorking, F.Z.S.

Acanthophis a. antarcticus (Death Adder) is, possibly, one of our most unusual snakes. In general form this snake resembles the Old World vipers, but technically it has no affinities with the Viperidae.

The meaning of the generic name, *Acanthophis*, is spine-snake and Daudin must be credited with an excellent choice when he described the genus in 1803.

In the early part of this century many believed that the spine-like tail of the Death Adder was a poisonous sting; indeed, there are many today who still have their doubts as to the true purpose of this appendage and its importance to its owner. There are countless stories of the leaping ability of the Death Adder but, there have been no authentic instances of reliable observers witnessing such a phenomenon.

The reason, of course, is that no Death Adder can leap, at least not the fantastic distances claimed by many pseudonaturalists. It can, however, leave the ground as it strikes with lightning-like speed. The method of striking has much to do with the stories of the "stinging tail"; such a short, heavy bodied snake requires some counterbalance to assist a side strike; i.e., a strike toward an object directly to one side, the tail, or more correctly the whole of the posterior portion of the body, swings swiftly toward the object in conjunction with the anterior portion. It can be seen that an inexperienced observer

could confuse the issue by assuming that the snake was stinging and biting at the same time.

This is only one explanation of the many fallacious stories surrounding the purpose of the spine-tail.

I have in my collection six Death Adders. The largest, 28 inches, prefers mice and rats, the remainder of the group will take only lizards. If a lizard is close, but not within striking distance, the Adder, if in grass, lifts the tail to a vertical position and gently wriggles it (in a clear position unobstructed by grass, the tail is wriggled horizontally on the ground). If the lizard catches sight of such movement it is doomed, for once within striking distance of its prey the Death Adder very rarely misjudges its aim. Should the lizard be two or three feet away the tail is moved much more rapidly, though at no time is the motion violent. Possibly the snake becomes anxious about its prospects of a meal and endeavours to create enough movement to draw the lizard within range of the deadly fangs. This cunning performance is not always successful, for sometimes a lizard may not catch sight of the worm-like object wriggling, but, should it do so the Death Adder is assured of an easy victim.

The preceding observations were not made on one particular specimen but many, and it would appear that the use of the tail as a lure for lizards serves a more useful purpose than an auxiliary poisonous apparatus.

"Why Not Grow Native Plants?"

By T. R. N. LOTHIAN, Director, Botanic Garden, Adelaide
13th January, 1955

Ever since the day Banks and Solander landed on Botany Cove and first saw our remarkable vegetation, there has been a keen desire by all who grow good plants, especially in England, on the Continent and in America, to add examples of the Australian flora to their collections. So great was the interest aroused when our plants were introduced that they dislodged as favourites those remarkable South African plants such as *Ericas*, *Proteas* and *Leucospermums*. In their place people were anxious to grow *Eucalypts*, *Melaleucas*, *Callistemon*, *Grevilleas*, *Hakeas*, *Wattles* or *Acacias* and many others of the curious and brilliantly flowered Australian plants.

Gradually gardeners in Australia have learned that many of our Australian plants not only rival the many exotic species imported from various parts of the world but grow more easily and luxuriantly. They have learned, too, much to their astonishment, that the statement that Australian plants flower for short periods only is quite incorrect. But in spite of their beauty, their ease of culture and their longevity, they are not yet universally cultivated. This is a pity because those who do not grow our Australian plants grow from their gardens a most distinctive and interesting group of trees and shrubs.

It is likely that one of the objections against our Australian plants is the tremendous amount of misinformation regarding their requirements. How often have we been told that one must not apply manures or fertilisers of any kind to our Australian plants, that if we do they will die. Of course you can give manures and fertilisers to any of our Australian plants, and if these are applied sensibly and in moderation our plants will grow better and flower in greater abundance. In other words let us manure our Australian plants in

exactly the same way as we apply manures and fertilisers to our ordinary garden plants. Another false idea is that we must select the bleakest, the poorest and the least useful piece of ground to grow our native trees and shrubs. This presumably is based on the assumption (unfortunately still repeated) that Australia is a vast dry land and that the plants which come from such a country require such conditions.

It is true that a greater portion of Australia has a low rainfall. But it is not true that the plants which come from such a country require such conditions.

It is true that a greater portion of Australia has a low rainfall. But it is not true that the soils are poor, as anyone can bear witness who has seen the rapid growth which takes place following rain in these dry areas. Nor is it true that all of Australia is like this. Most of the eastern areas as far inland as the Great Dividing Range enjoy a high rainfall, and plants coming from these districts must be given plenty of water and good soil. Therefore if we are growing plants which are native to the eastern seaboard they should be treated in exactly the same way as we treat garden plants received from the higher rainfall and temperate regions in other parts of the world.

How many times have we heard that Australian plants resent root disturbance? This is one of the few items of advice ever given which is true so far as Australian plants are concerned.

Having dealt with some of the erroneous beliefs in regard to the cultivation of Australian plants, let us now consider what we should do to cultivate them successfully. Plants from the dry and sandy areas of this Continent should, if possible, be given a position which is better drained than others, and which is out in

the open, for plants from desert regions must never be placed under trees or shrubs. Species of *Melaleucas* or *Honey Myrtles*, some of the smaller growing *Acacias* or *Wattles*, the *Desert Rose*, *Hakeas*, *Grevilleas* and even *Sturt's Desert Pea* will survive in such places. Examples of the incomparable flora of Western Australia, the *Grampians* in *Victoria* and the sandstone regions in *New South Wales*, all will enjoy such conditions.

But the vast majority of Australian plants which are suitable to grow in the home garden will thrive perfectly well in what is normally described as "average garden soil." Soil preparation will include the removal of perennial weeds and make certain that it is well drained for very few plants, no matter their country of origin, enjoy wet or boggy conditions. After the perennial weeds have been removed the actual positions of the shrubs are decided on and the soil loosened with a fork to a depth of 6-9" and perhaps a foot or so square in area. That is all that is necessary. Planting can then take place.

Possibly one of the greatest deterrents against the cultivation of our Australian plants has been what may appear to be their premature dying. This is caused by planting pot-bound seedlings, two or even three years old with their roots coiled in a tight ball. Young plants only, preferably under twelve months old, should be planted. It does not matter if they are only 4" or 5" high, they will grow rapidly, establish quickly and flower at an early date. The technique for planting is simple. A hole large enough to accommodate adequately the roots should be made in the loosened area. A small handful of superphosphate should be mixed with the soil and the young plant set at a slightly deeper level than it is in the pot. The soil is then replaced around the roots and firmed. If the soil is moist and conditions are cool watering need not be carried out, but this is usually desirable. Plant in the early autumn or, in the case of frost tender species, after the danger of frosts is over.

Our Australian plants can be used for numerous purposes. Those shrubs which grow from 3 - 5, 6 or even to 10 ft. high are ideal for shrubberies. There are a number of genera, and those with brilliant flowers and easy to grow, include *Banksias*, *Beaufortias*, *Callistemon* or *Bottle Brushes* and *Melaleucas* or *Honey Myrtles*. A genus rarely cultivated is *Calothamnus* or *Net Bush*. These, with their short pine-like foliage and brilliant red flowers, are most attractive and make ideal tub plants. The *Geraldton Wax* is well known. *Grevilleas* and *Hakeas* are also often planted but a related genus, *Dryandra*, grows equally well and the flowers are even more brilliant. *Isopogons* or *Cone Bush*, *Kunzeas*, various forms of *Tea Tree* and *Prostanthera* or *Mint Bushes* should all be included in any garden collection of shrubs.

Amongst our climbing plants *Hardenbergia* or the *Coral Pea* is probably the best known. The *Wonga Vine* and the *Bower-of-Beauty*, two species closely related to *Tecomas*, make magnificent displays.

It is a pity that more of our native trees, especially the small growing species are not more commonly planted in the home garden. The taller growing species make wonderful park trees. There are a number of ornamental *Eucalypts*, rarely exceeding 10 ft. with red yellow or cream coloured flowers which are suitable as specimens or to plant at the back of the shrubbery. The variegated *Rusty Fig* makes a colourful specimen with its yellow and green leaves. The taller growing *Honey Myrtles* or *Melaleucas*, the *Fire Wheel Tree* and the *Eugenia*s or *Brush Cherries* are all worthy of cultivation.

To see these plants and to make a proper selection visit your Botanic Gardens and public parks where you will see how well and how readily these plants grow. In fact you will find that our native plants are not only extremely interesting, easy to grow and lend themselves to garden culture, but the quantity of flowers produced will make them among the most outstanding plants of your garden.

Sunbird Nestlings' First Descent from Nest

By Cleo Seaton

Mr. A. H. Chisholm makes the following inquiry regarding the first descent from the nest of the fledgelings of the sunbird as described in my article in the N.Q. Naturalist of May last.

"When you say that in the first flight from the nest the bird's actions 'gave the impression' that the fledgling had its first journey on its mother's back, do you mean that that was merely an impression, or did one or both parents actually carry the babies? There have been, as perhaps you know, a number of records of birds carrying their young (some of which I discussed in my Bird Wonders of Australia), but I had not previously heard of anything of the kind being attributed to the Sunbirds."

To the above I replied:—

The birds do not carry the chicks. Hen and chick leave nest simultaneously, the hen probably as a guide, and the cock as a protection from other birds such as Friar Birds, Drongos, Kingfishers, Wagtails and Dusky

honeyeaters, the latter being a very nasty customer. I might mention they had things much easier in May and took their time, with the result, the second chick was so keen to leave the nest with the rest of the family that it fluttered out and down to the ground on its own, and was encouraged by the hen calling to fly up on to a banana leaf. At this time of the year they did not have to take to the gully as the sugar cane was still standing and arrowing (flowering), so gave food and shelter at the same time, and with so much fruit berries and blossoms in the gully to keep the large birds happy, we can enjoy the company of the grass birds, etc.

Mr. W. A. Collins tells me his sunbirds just sit a couple of yards away from the nest on the tree, calling and flying up to the nest and the young ones, after several attempts, make the flight on the tree themselves, whereas mine have to travel 30 feet on a slope, as it seems that the parents just work out the best procedure.

BIRD NOTES

By Cleo Seaton

In answer to queries concerning my article on Sunbirds at Home in the May issue of this journal, the following notes are submitted.

It would be only guess work to say that it is a habit to start building and then neglect to finish the same. My neighbour had the same experience when after the nest had reached the foundation stage the birds left, but unfortunately the birds did not return and the nest rotted away, whereas the birds, in my case, after successfully hatching her first brood, produced another pair of chicks in May, although in a badly battered nest.

My reason for believing that the same parents occupied the nest on the second occasion is that they showed the same interest in the nest since the hatching of the November chicks, and that during the cyclonic weather, after much wind and rain, we heard a commotion from the birds sitting on the clothes line and upon investigation found their nest lying on the ground. Mr. Seaton bound it with string and replaced it minus the pennant, and once more it received periodical pokes. No effort was made to restore the pennant, and on May 15, 1955, another pair of

chicks was born, leaving the nest on May 30, 1955.

I have never seen their nests in the bush around these parts, and have come to the conclusion that the green tree ants, *Oecophylla virescens* are too numerous. Mr. W. A. Collins up on the hill drew my attention to this when he told me how his sunbirds made such a fuss over the nest and he knew that they had just hatched chicks. He investigated to find the new born almost reduced to skeletons by green ants. Unknown to him, a branch from

a tree had grown high enough to touch the wire from which the nest was suspended.

In reference to the brooding, this would be no longer than ten days. When I wrote (all this took place on November 20) I meant the chicks were hatched ten days after the removal of the nest from one site to the other.

FURTHER NOTES: The Sunbird took to sleeping in her nest from April 23, 1955, leaving it vacant all day. On April 30 she commenced to occupy it day and night (it is very hot during mid-afternoon for her).

The North Queensland Naturalists' Club ANNUAL REPORT FOR YEAR, 1954-1955

By Alfred A. Read, President

It is with pleasure that I again submit the Annual Report of activities of the club for the year, 1954-55. The year has been a successful one with all officers of the club carrying out their duties in a satisfactory manner.

The main event for the commencement of the new year was the presentation of the H. Flecker Natural History Medallion which was awarded to Miss Roslyn Warren for her observations of Green Hill, and was presented by the doctor. This award carried a cash prize of £2/2/-. To further interest amongst competitors, Dr. Flecker introduced the ideas of competitors selecting their own special study for observation in any branch of natural history.

Before the close of the year the club lost one of its foundation members in the person of Mr. Arthur J. Moran, who was well known for his study of bird life. Many of his valuable books on subjects of natural history were donated to the club by his widow. Sorrow also came to another of our esteemed members, Mr. George Atkinson, in the loss of his son.

The Christmas Party was held at the residence of Mr. and Mrs. Read and all members enjoyed a pleasant evening and advantage

birthday greetings to Dr. Flecker, was taken of the night to express who was celebrating his 70th birthday, the club members presenting him with a pen and pencil set to mark the occasion, and to wish him good health to carry on his wonderful work in the interests of Natural History.

During the April meeting a film evening provided by courtesy of the Adult Education Department was shown to members and visitors at the School of Arts, dealing with subjects of Natural History. This was largely attended and much appreciated by all.

Main discussion during May was for the safeguard of the future existence of the North Queensland Herbarium now directed by the club, and which has been the result of many years' work by the doctor. A scheme for the formation of a trust to control the Herbarium is now in progress.

Another film evening in June was given by Mr. A. H. Clarke, assisted by Mr. M. Wilson on their spear fishing experiences on the Great Barrier Reef and again gave much pleasure to all.

July again brought very keen competition for the H. Flecker Natural History Medallion and again Keith Barry was the successful competitor, Valda Lawson

gaining second and Kay Hungerford third prizes.

Dr. P. O. Flecker and Mr. William Hosmer, both members of the club, were appointed Honorary Rangers by the Department of Agriculture and Stock for the protection of flora and fauna.

To advertise the monthly meetings notice boards have been placed at "Tropical Attractions" and at the entrance to the School of Arts.

Many new members have again been added to the list published in the N.Q. Naturalist and welcomes extended to numerous visitors to our city who have come along to the meetings. Club outings were abandoned mainly owing to the long continued wet season.

PROPOSED BOTANICAL SOCIETY

(By E. Pollock, Parkes, N.S.W.)

Let us acclaim, with unstinted admiration, the ingenious and novel manner in which the South African National Botanic Gardens, at Kirstenbosch and Worcester, Cape Province, distribute seeds of their indigenous flora and, at the same time, raise funds to maintain those institutions at a high level of efficiency.

How is that effected? By means of their Botanical Society of South Africa, an organisation whose membership is not the prerogative of a privileged few but available to all naturalists on payment of an annual subscription. And that entitles each member to receive each year, according to the amount subscribed, seeds of 15, 20, 25 or 30 of almost 500 species of flora represented in those National Botanic Gardens.

A commendable scheme? It certainly does overcome the objectionable alternative, here in Australia, of having to write begging letters to Curators and/or Directors of Botanic Gardens beseeching them to send you, or me, a pinch of seed of a plant in which one is particularly interested. It also spares us the undoubted humiliation of being told, sometimes very curtly, that the seeds of species in "their" collec-

Special mention is due to Mr. S. F. St. Cloud for his continued work on the description and illustrations of new orchids which have been contributed to the journal.

I also desire to express my thanks to all officers and members of the club for their full co-operation and interest manifested throughout the year and for the many and varied specimens brought along at each meeting by individual members for discussion. I take this opportunity to express my gratitude for the good feeling and friendliness at each meeting and wish the club continued success in its now long history.

tions may be had on an exchange basis, and are NOT for sale to the public.

Readers and sympathisers. Have you ever had such an experience? Have you ever been rebuffed in that fashion and felt as though you had literally prostrated yourself at the feet of the mighty, to ask a favour, and been well-rebuffed for your pains? Well, we deserve it. It is a fitting reward for our servility, our meekness, our respect for the status quo, our poverty of constructive ideas, and our apathy in not pressing for a better deal.

The time has come to ask two awkward questions. (1) What becomes of the annual harvest of seeds of plants in botanic gardens maintained at great public expense? (2) How can the amateur naturalist, with nothing to offer, get anything from botanic gardens who exchange but will not sell seeds? That is the unsolved botanical riddle of this atomic age. Ludicrous and absurd too, as the policy puts the floral treasures of the nation, that have been accumulated by immense social effort since the colonisation of Australia, beyond reach of the common man.

Is there a remedy, for the existing state of unsatisfactory affairs, that would ensure real botanical progress in the Commonwealth? Of course there is. We must emulate the example of our Afrikaner friends by the immediate establishment, in New South Wales, Victoria and South Australia especially, of botanical societies having the same objectives as the Botanical Society of South Africa.

Then, on payment of an annual membership fee, any person, rich or poor but anxious to grow trees, shrubs, etc., will become entitled to so many packets of seeds, of his own selection, from the Botanic Gardens in Sydney, Melbourne and Adelaide.

The writer suggests that the funds raised by the adoption of such a scheme be safeguarded against seizure by rapacious political parties for consolidated revenue, and that any surplus be used to finance rambles or excursions into bush, scrub and jungle by newly-graduated botanists in charge of an older expert, for the collection of seed and plant material of species not represented in those botanic gardens, and to obtain the like species new to science. (Young active men they must be, as more experienced botanists of the chair, by reason of long, sedentary habit, are unlikely to be in fit physical condition to survive the hardships of exploratory work.)

Anyway, what does the scheme call for? A complete break with tradition, by the organisation of each botanic garden on a proper business-like basis. This would necessitate (1) the numbering of all plants in the collection, (2) the erection of a kiosk, gaudily painted in striped colours easily recognised by visitors to those gardens, and a competent staff therein, with cash register, typewriter, membership application forms, etc., (3) plenty of notices, posted in conspicuous positions throughout the gardens, inviting the public to membership of, say, "The Botanical Society of N.S.W."—and a supply of seeds according to personal choice. (If only for the Shakespearean reason—in "King Lear"—that "A thing in motion sooner catches the eye than what not stirs," these notices should be operated accordingly by

mechanical means, and illuminated on dull days to advantage). Suitable notices for popular digest would be as follows (a) "Dear Visitor, would you like seeds of some of the trees and/or shrubs in this Botanic Garden? Please call at the striped kiosk in these grounds." (b) "Visitors requiring seeds of species growing in these gardens are requested to note the numbers of their choice, and then call at the kiosk (painted in red and white stripes) hereabouts." And when they do so, the staff put over a good line of sales talk, explain the scheme in detail, sign them up for membership and seed supply, and collect the cash. What could be easier, or simpler?

There should also be a team of energetic canvassers, on a commission basis selling membership in the new botanical society going from door to door throughout the suburbs of capital cities, and in every country town. That would popularise the cultivation of native flora as never before, and provide funds to expand the activities of botanic gardens independently of any grants by parsimonious State governments.

Would the scheme add to the worry and responsibility of the busy, harassed and often overworked Chief Botanist, or Director? Not at all. He could delegate authority to a competent person in charge of seed collection and distribution, and leave all problems of finance to an expert in that province alone. Let's have it, without delay. All that is required is the will and determination to sweep away the conservatism of long-established institutions fearful of change and new innovations, the appointment of salesmen with bright ideas, and some initial advertising to bring the scheme into being. Once in vogue, the scheme would sell itself not only to citizens in every State but to botanical enthusiasts throughout the world. Well publicised in the United States, the idea would be instrumental in bringing a steady flow of almighty dollars into the coffers of Australian botanic gardens, to finance more seed-collecting expeditions into the remote parts of the continent, by young botanists straight from the University. That would be the most valuable and practical training of their lives; but

it is suggested that they be accompanied by experienced bushmen lest they, like Leichhardt, fade out of the picture altogether.

The above is the rough outline of a practicable scheme for the advancement of botanical science. It is hoped that the enthusiasts might be induced to support such a plan.

The North Queensland Naturalists' Club

Meets at School of Arts, Cairns, usually on second Tuesday of month at 8 p.m.

MEETINGS

April 12, 1955: Natural History films exhibited by Mr. Bitmead of Adult Education Department of developing embryo of chick, anatomy of frog, the spider and pond life, with sound tracks. A film on snake bite and its treatment was also shown. Attendance 15 members and 10 visitors.

May 10, 1955: Resolved to support move by Cairns Horticultural Society to expand the development of the Botanical Reserve at Edge Hill into Botanical Gardens worthy of the City. Attendance 11.

June 14, 1955: Moving and still pictures taken by Messrs. A. H. Clarke and M. Wilson in their spear fishing on the Great Barrier Reef. Attendance 12 members and about 28 visitors.

July 12, 1955: Announcement made that owing to the large number of entries, it was decided to award in addition to the Natural History Medallion to Keith Barry, second prize to Valda Lawson of St. Monica's School, and third prize to Kay Hungerford of Edmonton.

August 9, 1955: Attendance 10 members, three Victorian visitors.

ELECTION OF MEMBERS,
May 10: Mr. F. L. Basey, 17 Jones St., Cairns. **June 14:** Messrs. John Milton Thorne Nankivell, West Cairns; Milton Undy, Coen; Francis John Armbrust, Endeavour River, Cooktown. **July 12, 1955:** Messrs. Edward Pollock, Molog Rd., Parkes, N.S.W.; Geo. Wm. Taylor, 354 Draper St., Cairns.

PUBLICATIONS BY N.Q. NATURALISTS' CLUB

1. CHECK LIST OF NORTH QUEENSLAND ORCHIDS .. PRICE 1/-
2. MARKETABLE FISH OF THE CAIRNS AREA PRICE 1/-
3. CHECK LIST OF NORTH QUEENSLAND FERNS PRICE 1/-
4. EDIBLE PLANTS IN NORTH QUEENSLAND PRICE 2/-
5. LIST OF BIRDS OCCURRING IN NTH. QUEENSLAND .. PRICE 2/-
6. LIST OF AUSTRALIAN DRYOPIIDAE PRICE 6d.
7. CHECK LIST OF NORTH QUEENSLAND ORCHIDS .. PRICE 2/6
(Second Edition)