

AUG 1980

OFFICIAL BULLETIN



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20 CENTS

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The W.A. Native Orchid Study and Conservation Group.

Objects of the Group:

- * to promote interest in, and preserve, Western Australian indigenous orchids
- * to learn the best means of cultivation and to do all things possible for the conservation of native orchids in their natural environment
- * to learn their habitats and keep records
- * to have field days and learn to recognise the different genera and species
- * to hold meetings for the exchanging of knowledge and furthering of interest in Western Australian native orchids

NEXT MEETING:

Third Wednesday of the month. Wednesday, 20th August, 1980 at 8 pm. Film Room, Department of Agriculture, Jarrah Road, South Perth.

Speaker: Mark Clements of Canberra Botanical Garden.

Topics: Mark will cover a diverse range of topics including his work in Canberra on vacuum flask orchid propagation from seed, Fungi symbiotic relationships with orchids, his future work on orchid genetics, a slide program on unusual orchids and comments on naming of orchids.

Mark needs little introduction as one of the most committed native orchid enthusiasts in Australia and we strongly recommend you do not miss what will be an information packed evening from one of our leading orchid researchers.

Please bring all orchids you have in flower for discussion and observation. The Stall will operate as usual with the addition of some pots of native orchids collected from Three Springs, for sale, to boost club funds and to encourage cultivation.

Coffee and biscuits will be served afterwards. The club agreed a 20 cent donation would be an acceptable way to defray costs.

COMMITTEE MEETING:

Second Wednesday of the month.
[redacted] at 8 pm.

FIELD TRIPS.

Details in July Bulletin.

Summary:

August, 17th: John Forrest National Park, Mundaring.

August, 30th & 31st: Hyden, Lake King, Lake Grace.

This trip is being conducted by Andrew and Charmaine Brown who spent last spring in this area and will show us some of their major finds including *C. roei* and *C. cristata* plus many others. We regret it is school holidays but Andrew's field trip for the first three weeks in August prevented it being any other weekend. Please let the President know if you are coming and also if you wish to share transport.

September, 13th: Three Springs collecting trip.

September, 21st: Boulder Rock, etc. Field day and social outing.

October, 11th to 13th: Walpole. 1977 was the last trip to this area. There is lots to see, so do make an attempt to come.

There may be other brief field trips announced at the August meeting.

We remind members that inability to attend meetings does not preclude you from attending field trips and vice versa. We particularly look forward to country members joining us whenever possible.

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WILD LIFE CONSERVATION ACT. AMENDMENT ACT 1979. TOPIC JULY MEETING.

Mr Bowen, Director of the Department of Fisheries and Wildlife was kind enough to address our July 1980 meeting on the implications of the above Act in respect of Collector's Permit Applications. Copies of the Amendment Act and the Regulations are freely available from the Department at 108 Adelaide Terrace, Perth, 6000. The Amendment Act in itself almost stands alone.

In summary. You can collect off private land with the permission of the owner unless the species is declared rare. You obtain a permit for Crown Land from the Department. If you are collecting off land encumbered to another Department you must also get permission from that Department. Fisheries and Wildlife wish to encourage bona fide enthusiasts and will cooperate the best they can.

From the club's point of view, please remember the motion of June 1979, included in that Bulletin. It is the individual's responsibility to obtain his own permit, and the group will endeavour to always draw the members' attention to the current laws.

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Slide Competition and Programs:

The slides taken at the June meeting were displayed and the variety amusing. We did not realize the competition would take so long but thank members for their participation and congratulate Mrs Gibbings on her win. Ron Heberle's slide program on *Thelymitra spiralis* species was stimulating and ably presented by Linda Penny. We thank them both. The slides of *Rhisanthella gardneri* were a delight and I am sure it made some people wish they had been able to travel to Munglinup in June.

* * * * *

FIELD TRIP TO THREE SPRINGS.

This was a very unusual trip for the club as it was a 'collecting' trip. Mary Sharpe had written to say they were clearing 700 acres and would we like to come and take off any plants we liked.

Five of us set off at 6.30am on a furious, windy, rainy, morning. At one stage the rain was so heavy we had to crawl along at snail's pace. We reached "Booiyana", 29 kilometres from Eneabba, at 10.45am and after greetings and a cup of tea, surveyed the area. It had been burnt in September, 1978 so walking was quite easy in what was normally extremely thick metre high scrub on sandy soil with the occasional clump of 'black butt'. Occasional heavy showers came over and we returned for lunch freezing and wet. The sum total of our search had been many colonies of *Caladenia flava*, *Pterostylis vittata* var. *vittata*, *Leporella fimbriata*, all found mostly under the clumps of black butt. There were some *Lyperanthus nigricans* leaves and some *Prasophyllum elatum* and *P. ovale* var. *trigloch*, found mostly in the open. A search, after lunch, to another lower lying area, unburnt, produced the same species.

One area of interest at the western area of uncleared land was a red gravel laterite westward facing ridge about a mile long with a 30' - 40' steep drop, then sloping away steeply as sand again. In this different habitat we found *Caladenia gemmata*, *Pterostylis vittata* var. *vittata* and *Thelymitra fuscolutea* var. *stellata* and var. *fuscolutea*. *Stellata* was a new, most northern, location discovered by Mary Sharpe last spring. We hope that area will be fenced off and preserved and have also encouraged our hostess to look for it in similar locations.

After afternoon tea we journeyed 5 miles north to a low lying area with a natural spring forming a creek, just to look around. The red clay/loam soil was covered by *Melaleuca uncinata* 7 - 8 foot tall, Sheok of the same height, other low *melaleucas*, dryandras and *Hakea* (pink flowering). The water was up to 4 inches deep in places. Here we found leaves of *Caladenia filamentosa* var. *filamentosa*, *flava*, *gemmata gemmata*, *huegelii*, *hirta*, *patersonii patersonii*, and in flower or bud, *Cal. deformis* (one white flower also) and *cairnsiana*. In flower *Pterostylis vittata vittata*, *nana*, *nana* without basal rosette, *Sargentii*, *recurva*, *Diuris longifolia*, and in leaf, *Elythranthera brunonis*, *Thelymitra antennifera*, plus two others unidentified, and unidentified *Prasophyllums*. No *Rhizanthella*!!

Exhausted, we retired to "Booiyana" for drinks, an excellently presented slide program by Andrew Brown, dinner and bed.

Sunday morning we went onto the sand plains and collected. Should I also mention we collected plentiful supplies of *Macropidia fuliginosa* and *Verticordia grandis*. We then packed up and moved onto Arrowsmith where, in the known location, we found many specimens of *Cal. crebra*. One area adjacent to it has been cleared since last year. It is a beautiful orchid, one under threat and we must make efforts to have it preserved. It was first described in *Nuytsia* Vol. 1 No.2 1971 by A.S. George. It grows with a white gum *Eucalyptus erythrocorys* and scrubs, and its distribution has not been extended since that time. There were also many *Prasophyllums*, the occasional *Pt. vittata vittata*, and thousands of bees from nearby hives!

It was a stimulating but exhausting journey. I was in bed asleep by 7.30pm Sunday and I feel I was not the only one.

The five members who went give their heartfelt thanks for the wonderful hospitality extended by Mary Sharpe and thoroughly enjoyed her infectious enthusiasm in her environment. We recommend the trip to anyone who can spare the time in September.

THE THELYMITRA SPIRALIS GROUP - R. Heberle (Albany)

This colourful and attractive group of orchids is readily recognizable by their three lobed yellow column appendages and the characteristic spirally twisted leaves. Although widely distributed they are never found in abundant populations as are other members of the genera. They are highly selective in the habitat in which they choose to grow.

There appears to be two definite stocks or groups - the "coastal" and "inland" divided by a buffer zone of approximately one hundred kilometres. The coastal varieties like to grow in open firm black sand around swamp perimeters and along the flat banks of well drained water sheds. The inland varieties also prefer firm sandy loam with clay subsoil, in very open country sparsely populated with other shrubs.

These orchids transplant readily and appear easy to culture. An interesting observation is that the leaves appear and grow quite straight for the first few weeks and then slowly start to spiral - the flat plate at the base of the leaf comes even later.

Most appear to be self fertilizing with evidence of poorly developed rostellum. The flowering cycle is short and spread over the months of July, August and September depending on whether the locality is "coastal" or "inland". The flowers tend to open with much less warmth than that required for most other sun orchids.

I believe that there are about twelve varieties of these very attractive orchids, although A check list of the Orchidaceae of Western Australia by A.S. George, NUYTSIA Vol. 1 No. 2 1971 lists just four with one reduced to a synonym. I have never collected or seen *Thelymitra spiralis* var. *pallida* and var. *scoulerae* but have seen two new varieties, one at Cranbrook and one at Lake Grace. It would seem that both *Thelymitra variegata* and *Thelymitra matthewsii* should also be included in this group, and I am still looking for the latter.

Another interesting observation is that James Drummond recorded three sun orchids with spirally twisted leaves - *Thelymitra variegata*, another with pink spots probably a variety of *Thelymitra spiralis* and one with yellow spots that appears to have disappeared.

FLOWERING TIMES - B.Stonor (Margaret River)

This note might also have been titled "Orchids the Year Round" since in this small area one or more species may be flowering during every month. This is not to say that flowers are to be found in every month of every year, but this can happen. It is obviously an advantage to know the usual flowering time of each species in each area and it appears that the times given in books may not always apply to some districts.

Starting with JANUARY, in most seasons there will be one or two of the late flowering *Prasophyllums* still in bloom and if we are lucky enough to live in the right area, a few flowers of *Caladenia corynephora*. These species often grow on land which is submerged in winter so are naturally late in flowering.

FEBRUARY is usually a blank month, but this year I was told that several colonies of *Cryptostylis ovata* were flowering in the pine plantations near Margaret River. It is curious that this species should grow in the pine forests in the South West. I wonder which came first, the orchids or the pines? I have heard that near Albany this species is always found on outcrops of granite, often growing in crevices in the rocks.

MARCH can usually be relied on to provide the first flowers of *Eriochilus dilatatus*, non flowering plants can be found at almost anytime of year.

APRIL must also rely on white bunnies to provide a few welcome flowers. If you are wondering if I have overlooked *Caladenia aphylla* I can say that as far as observations in this area are concerned this species is not one of the first to appear. Flowers of *C. aphylla* have only been found here twice, once at the end of April and once in early May. No flowers were found this year. So the flowering season for this species seems to be rather variable. The flowers are rather conspicuous on their long stems, a fact which has probably been noted by kangaroos and rabbits, possibly emus as well.

MAY is also a slow month, with few flowers. Plants of the early *Pterostylis* can be located but none has been found in bloom here as early as this.

JUNE may be regarded as the beginning of the orchid season, with *Pterostylis vittata* being the main species, with plants of *Pterostylis recurva* and *Pterostylis nana* showing buds. *Acianthus reniformis* var. *huegelii* is also in evidence but not yet flowering. Some colonies of this species never seem to flower while others flower regularly every year.

JULY may be the best month for the greenhoods, but the flowering time for most species often continues throughout the spring..

AUGUST is generally rather a disappointing month, we spend a lot of time looking for flowers which we feel ought to be there but are obviously waiting for better weather and who can blame them.

SEPTEMBER and OCTOBER provide the most flowers, particularly in the *Caladenias*. There are a few disappointments too, for instance it is very rarely that one sees a flower of *Lyperanthus nigricans* even on land which has been burnt the previous year. Most burning is carried out in the spring so perhaps this is too long before the flowering season to have any effect. *Thelymitra pauciflora* flowers in September, though it is most unusual to find an open flower.

NOVEMBER is the *Thelymitra* season, in a good year *Thelymitra crinita* may be found by the hundred, many plants with 15 flowers. The recent dry years have suited this species which has provided a fine show for the last few years. *Microtis brownii* also flowers about this time.

DECEMBER sees the tall *Prasophyllums* at their best and *Caladenia corynephora* flowering at suitable spots along the river. A plant of *Caladenia patersonii* var. *longicauda*, which also grows close to the river, has flowered in mid December for the last two years.

These are of course only a few of the species to be found locally. A number of others flower regularly while some species, such as *Elythranthera emarginata* are seldom seen. Others flower after a fire, notably *Caladenia nana*, *Eriochilus scaber* and *Caladenia deformis*. *Caladenia sericea* is at its best after a fire but also flowers freely every spring in almost any situation. A severe burn about the time the plants of *sericea* are flowering does not seem to worry them at all.

NATIONAL PARKS WITHIN 200km OF PERTH - A. Harrington

The 'Atlas' scheme for computerizing distribution data of orchidacea (and of other flora plus fauna) is now almost ready to commence. One of the main aims of the scheme is to assess valid areas which need to be classified as reserves because of their uniqueness or variety of species. However, I consider, for the scheme to be successful one must first assess the content of the Reserves and Parks already classified so that a value of an area in relation to what we already have reserved can be determined.

The knowledge of orchidacea distribution in current reserves is sparse. Consequently I would like to see the group plan to slowly cover as many parks as they can as part of their annual field excursion programme.

Classification of Reserves:

Classification of reserves first appeared in the Permanent Reserves Act 1899 and gave three classifications of varying degrees of security. These are now classified under Sect. 31 of the Land Act 1933-67.

A Class Reserves.

These cannot be alienated for any other purpose except by an Act of Parliament.

B Class Reserves.

These cannot be alienated for any other purpose except by proclamation in the Western Australian Government Gazette after adequate reason for alteration has been given to both Houses of Parliament by the Minister for Lands.

C Class Reserves.

These are easily alienated as they can be cancelled or have their purposes changed by the Governor after proclamation of the action in the Western Australian Government Gazette.

Ideally we should survey A Class Reserves to know what we have got and C Class Reserves to preserve what we can as soon as possible.

National Parks

These are areas designated to come under the control of the National Parks Authority of W.A. Other reserves are designated under the control of the Dept. of Fisheries and Wildlife and the Forests Department.

The restriction of 200km from Perth was chosen so that our city members can plan trips to these Parks. Most country members know well the Parks in their own vicinity.

Members are encouraged to fill out 'Atlas' sheets whenever they are in National Parks.

<u>Class</u>	<u>Size</u>	<u>Name</u>	<u>Comment</u>
	17,543 h	Moore River	113km North of Perth undeveloped.
	17,332 h	Nambung	South of Jurien Bay
	13,121 h	Badgingarra	Black Kangaroo Paw Reserve
A	8,501 h	Alexander Morrison	North West of Nambung
A	44,324 h	Watheroo	
A	11,545	Yalgarrup	Coast, South of Mandurah

<u>Class</u>	<u>Size</u>	<u>Name</u>	<u>Comment</u>
A	2,799 h	Yanchep	Established 1905, North of Perth
A	4,377 h	Avon Valley	Restricted access for recovery
A	375 h	Kalamunda	Leaving undeveloped
A	1,577 h	John Forrest	East of Perth
A	635 h	Serpentine	South East of Perth
A	1,790 h	Walyunga	37km North East of Perth
A	56 h	Lesmurdie Falls	24km Perth recreational
A	2,681 h	Drovers Cave	North of Nambung
	33 h	Gooseberry Hill	Scenic views
	56 h	Greenmount	Scenic views

The trip to John Forrest National Park on 17th August was designed to commence this collation of information on National Parks. It will also be a learning experience in compilation of 'Atlas' sheets.

My thanks to the late Mr Lal Shepherd for the stimulation for this article.

References:

- C.F.H. Jenkins. The National Parks of Western Australia. Pub. 13/08/80
1st Edition. Available only from National Parks Authority
Headquarters, Matilda Bay, Hackett Drive, Crawley, W.A.
\$6.65
- Travellers Atlas of Western Australia, 1st Edition, 1978.
Available Dept. of Lands and Surveys, St Georges Terrace,
Perth, W.A. or from the Commonwealth Bookshop, Cloisters
Arcade, St Georges Terrace, Perth, W.A. \$4.75. It has
latitude and longitude on maps and in the Index.

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ERRATUM In the Field Trip report given in the July 1980 Bulletin

Delete: *Caladenia aphylla* Insert: *Eriochilus dilatatus*

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CONSERVATION OF ORCHIDS A. Brown

One of the main aims of our Group is conservation and one of the best ways of achieving this is to push for the creation of A Class Reserves.

To date the Group has helped in the formation of two, one at Nedlands in which we have planted a number of orchid species as well as other native shrubs and trees and the other at Bakers Junction reserve near Albany which contains as many as eighty species in nineteen genera.

However we must not stop here as our natural bushland is being cleared at an alarming rate.

If you know of any areas that contain either a large number of orchid species or a rare species, please let us know as we may be able to preserve some of them for future generations. Also if you could complete a 'Fisheries and Wildlife' Atlas Sheet in duplicate that would also be most useful as we could keep one for record purposes when we forward the other.

LESS KNOWN, RARE AND ENDANGERED ORCHIDS OF WESTERN AUSTRALIA.-

Andrew Brown.

Caladenia bryceana. R.S. Rogers
Caladenia corynephora. A.S. George
Caladenia crebra. A.S. George
Caladenia cristata. R.S. Rogers
Caladenia dilatata var. dilatata. R. Brown
Caladenia filamentosa var. caesarea Domin.
Caladenia filamentosa var. tentaculata Rogers in Black.
Caladenia gemmata forma lutea S.C. Clemesha ✓
Caladenia grammifolia A.S. George
Caladenia lavandulacea R.S. Rogers
Caladenia triangularis R.S. Rogers. ✓
Drakaea jeanensis R.S. Rogers
Lyperanthus forrestii F. Muell ✓
Microtis pulchella R. Br.
Prasophyllum brownii Reichb.
Prasophyllum gigantum Lindl.
Prasophyllum lanceolatum R.S. Rogers.
Prasophyllum sargentii A.S. George.
Prasophyllum triangulare R. Fitzg.
Rhizanthella gardneri R.S. Rogers.
Thelymitra carnea R. Br.
Thelymitra fuscolutea var. stellata Lindl.
Thelymitra macmillanii F. Muell.
Thelymitra matthewsii. Cheeseman
Thelymitra psammophila C. Andrews.

Some of these such as Caladenia crebra may be locally common but because they are confined to one or several small areas must be regarded as rare. In some instances land development has already destroyed much of the orchids habitat and as further encroachment may occur the orchids are endangered. Hopefully, members may have seen one or more of these species and if so, it would be most helpful to our group if you could jot down a few notes showing exact locality, flowering dates, habitat, numbers found and the range of distribution. Even better, it would be much appreciated if you could write an article on any of these species, especially if you have found them common.

In the case of some such as Prasophyllum brownii, giganteum, lanceolatum and triangulare little is known regarding either range of distribution, habitat or even exactly what they look like. P. brownii may turn out to be the late-flowering white, elatum-like prasophyllum from Albany.

CALADENIA SIGMOIDEA

- A. Brown

This species was first collected from Kumarl during August 1937 and subsequently named by R.S. Rogers in 1938.

The name *sigmoidea* meaning S shaped bend or curve refers to the shape of the labellum.

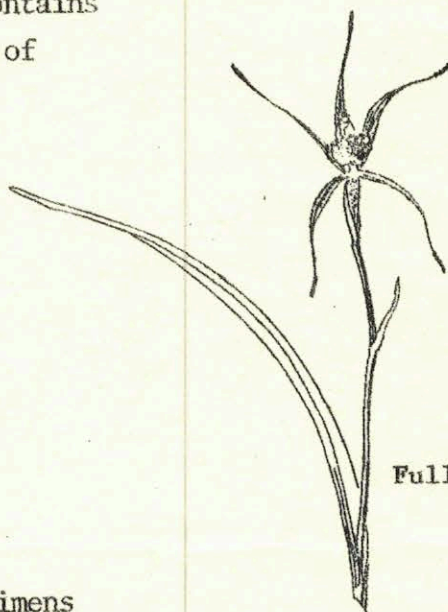
Caladenia sigmoidea has a rather narrow and slightly hairy leaf which is usually as long or longer than the inflorescence. Its stem is rather hairy and contains from one to two flowers, these being yellowish in colour with dark reddish brown veinings on the perianth segments, all of which are conspicuously clubbed. The labellum which is mobile on a distinct claw contains dark red veinings and two rows of dark reddish fleshy calli.

Caladenia sigmoidea is usually seen in malli country where it can on occasions be found flowering in large numbers.

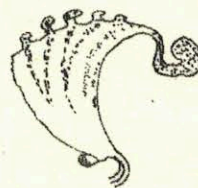
Distribution lies roughly between Hyden and Ravensthorpe then across to Salmon Gums, however it has also been seen south of Lake Grace.

It would appear from some specimens seen that *Caladenia sigmoidea* often hybridizes with *Caladenia filamentosa*.

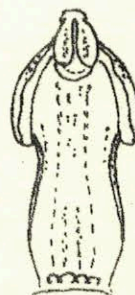
Its flowering period is from late July to early September.



Full size



Labellum
Side view



Column

A.W.

CALADENIA TRIANGULARIS - A. Brown

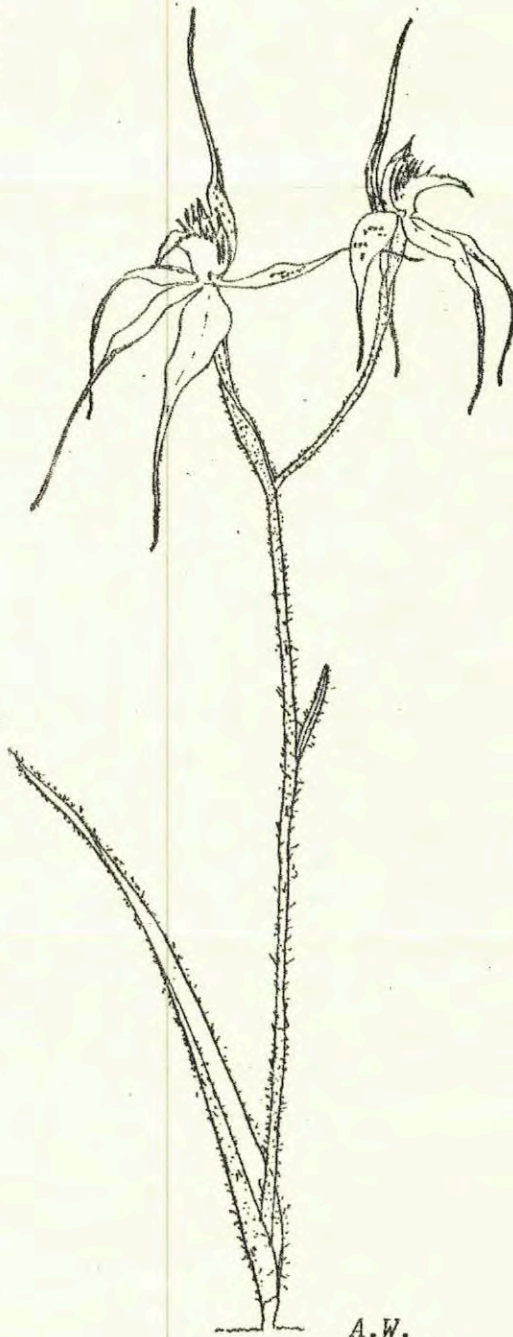
Caladenia triangularis has one or two pale creamy-yellow flowers, with some specimens showing strong rusty markings on the segments which are rather broad and short.

The labellum is clawed, ovate-triangular in outline with the margin deeply combed, becoming shorter anteriorly. The calli are in two rows not extending beyond the middle.

The orchid grows in open situations, usually under Wandoo trees and flowering is from mid September to mid October. It is widely distributed throughout the South West of Western Australia. Localities include Clackline, Cranbrook, Kojonup and Frankland. This orchid is extremely rare with only a few flowering plants being found in any given area.

I have been observing a small group of approximately seven plants at Clackline for the past six years and during that time they have neither increased nor decreased in numbers, with only two or three flowering each year. I have not observed any insects visiting the flowers and none has ever formed seed capsules.

Over the years I have come to the conclusion that *Caladenia triangularis* is intermediate in form between *C. patersonii* var. *longicauda* and *C. flava* and may prove to be a hybrid between the two. Evidence of this was illustrated several years ago when a bright pink *C. triangularis* was found near a swamp approximately 20 miles west of Esperance. Both *C. patersonii* var. *longicauda* and *C. latifolia* grew in this area and it would seem that in this case the second parent was *C. latifolia* rather than *C. flava*.



Full Size