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ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

ACACIA STUDY GROUP NEWSLETTER No. 83 May 2002

Dear members

The time for renewal of membership has arrived. My thanks to the members who contacted me about the proposed increase in membership fees to cover the cost of coloured plates. Though the number was small most thought that $8 was the way to go. The one dissenter Fred Mazzaferri suggested that the newsletter could be sent by email to those who favoured that option. I think that is an excellent idea and as a result there are two options on the renewal form – receive the newsletter in the usual way for $8 subscription or by email for $5. If you have paid in advance the increase won't apply. If you wish to change the way you receive the newsletter please contact me by email at 4thais@optushome.net.au
I look forward to your continued support.

The Year that Was

Now that a year has passed since the Acacia Study Group was reactivated it is time to review what has happened in that year.

Membership has grown from twenty-six to forty-seven. Thirty-eight are individual memberships and nine are Groups or Branches. This does not include the state branches. Some of the new comers were previous members but some have joined following contact with present members. Thanks for spreading the word. A list of members will be sent with the next newsletter.

The **Seed Bank** has been sorted and fifty- three new species added. Also thirty- one species now have fresh seed. One hundred and sixty-four packets of seed have been sent out and hopefully germination results will be sent to Rob Potter who is collecting this data. A number of members have mentioned having these records but not yet sending them on. A new germination sheet from Rob will be included in the next newsletter.

Rob has done a magnificent job in testing much of the older seed for viability – a total of 288 batches. We are told that Acacia seed is long lived but Rob produced the evidence that seed of some species is still viable after 30 years. The seed with low viability has not been discarded but members will be warned if it is sent to them. A few reports have come in concerning plants that are not what they should be and in these cases the seed has been removed or relabeled. A complete seed list will be sent with the next newsletter.

Photos of over forty species of Acacia are now stored and can be printed out or put on a disc if required. For each species there is a photo of the habit of the plant, a close up of the leaves/phyllodes and flowers, and any other features which may be of interest eg bark or seed pods. Most of these are cultivated and details of their growing conditions are available. This is a small number but I hope there will be considerable expansion in the next few months. The main problem is that almost all of the photos have been taken in SE Queensland. Please help this collection to expand with photos from other areas. I now have access to a slide scanner and will add the photos already belonging to the group. A list the photos available will be in the next newsletter.

Photos of insects are also forming a reasonable collection now, and again they can be distributed as prints or on a disc. Some information on classification, life cycle and control will be included. All photos in this case are from SE Queensland so some of the species are subtropical only and therefore not likely to be seen by southerners. I'm not sure how to get around this problem at present.

The 'Wattle' CD has only been loaned out five times which is disappointing considering is such a valuable resource for Acacia enthusiasts. If your branch library does not have the disc please think about borrowing the Group copy.

A start has been made on developing a **web page**. The SGAP site has a good feature on acacias so a new slant is needed. Any ideas? There will also be links to other sites.

A financial report will be in the next newsletter.

Please keep your letters coming as sharing your experiences is a vital part of the newsletter.

Climate and acacias

I am only able to speak for south east Queensland with any credibility but it seems to me that the experts' warnings that the east coast of Australia is drying are spot on. According to the data quoted, the rainfall has been decreasing over the last fifty years and the trend shows no sign of easing. This may be only a short term cycle but the short term could encompass at least several of our generations. Certainly in the ten years we have had land at Booie most of the time has been spent in 'drought' which perhaps has become the norm. Last year our small area had above average rainfall but well over one third of it came in one hit and with no follow up. This year the rainfall is well below average. Dams are drying up at a time when they should be full and with yet another el Nino in the wings things once again look grim. As a result I am rooting out the few remaining rain forest trees I have been trying to grow and expanding on the acacias from tougher areas. Some rainforest trees survive the dry periods but don't grow without that precious commodity - water. Many of the fast growing acacias may be short lived but they can become established in a short period of good weather and then left to their own devices. It has amazed me how rapidly some species can react to rain and continue growing even after the ground has dried to the point that surrounding native plants are wilting. This is why it is so useful to try species from other areas. I am finding that some of the locals are not coping as well as some of the introduced acacias from similar soil types but lower rainfall.

The one huge pitfall is the possibility of an introduced species becoming naturalized and then becoming a pest. This has happened with *A.macradenia* around Brisbane and I am concerned about *A.paradoxa* at Booie where it does not occur naturally. After a good wet season five out of six of my mature, cultivated plants died but about a dozen seedlings appeared in my neighbour's paddock and the same number on my land, both groups about 50 metres from the parent plants. The next time the land became waterlogged about one third of these died but the survivors and the land around them are being closely watched

Field day

Leon Steinhart, who lives near Laidley in the Lockyer Valley (about an hour's drive from Brisbane), has agreed to hold a Field Day for the Acacia Study Group on the twenty-eighth of July beginning at ten in the morning. Bring your lunch. Hopefully the maximum number of acacias will be flowering at that time. As previously mentioned Leon is a former member of the Group but no longer belongs to the SGAP. His property is an Acacia lover's delight with almost 180 species flourishing, at present, on a ten acre block. His area has also suffered very dry periods in the last ten years and it is interesting to see what has survived and prospered without supplementary watering. I realize that this visit will not be possible for most members but if you think you may be able to make it and would like a reminder please let me know when you return your subscription form and I will contact you nearer the time.
To get to Leon's – take the Warrego Highway from Brisbane to Plainland and turn right at the Plainland Hotel

continue for 3.3km
turn left into Laurette Rd (signposted)
number 13 is on the right (number is on the letter box.)

Leon's phone number is 07 5466 5154

Help!

Colin Fleet who is a member of the SGAP but not the Acacia Study Group has asked for members with knowledge of *A.melanoxlyn* to contact him. He is interested in guitar manufacture and concerned about the availability of suitable timber. Brazilian Rosewood was the favoured timber but the supplies of this species have now been depleted. Among the timbers now favoured *A.melanoxlyn* is prominent. John is concerned that overseas interests could buy up the available supplies of this species in Australia. He is anxious to gather any information about *A.melanoxlyn* including its growth rate in different areas.

Colin Fleet's phone no. is 02 4955 1233

From email

Brendon Stahl writes

The seed I that I have sown this year has not germinated as well as I would have hoped. Could you include in the next newsletter a request from members particularly from Victoria as to their methods, medium used, and best time of year to propagate acacia seed.

If you are able to assist Brendon he can be contacted at

9 Parkers Road
Deans Marsh
RSD Binegurra 3242

Phone 03 5236 3325 email brendonstahl@bigpond.com

From members letters

Hazel Kelly from Moonbi in NSW (22-4-02)

Ordered some seed and asked
Any suggestions as to planting time would be of great assistance. Is there a 'rule of thumb' for acacias?

I am embarrassed to say that as a person from SE Qld I am of no help. The planting times for species from different areas are probably different up here. Could anyone living in an area close to Hazel's help? Hazel's address is –

Hazel Kelly
PO Box 20
Moonbi 2353

Ki Conwall at Eudlo in SE Queensland. (15-3-02)

I agree with your high opinion of *Acacia gittinsii* – we have just one that flowered this year and another couple of juveniles, would like to grow a few more of these pretty little plants.
Otherwise our flowering acacias are *A.leiocalyx, A.melanoxylon* (indigenous) and *A.o'sharnesii* (seed from very close to our place). We have *A.fimbriata* doing well and *A.complanata* just flowering now although both plants are quite small.
An idea we have is to tuck small acacias in between other shrubs and trees. Especially along roads and drives.

Bruce Clark at Panmure in Victoria.

Rob Potter certainly took on a big job. I would not totally reject those seed which showed no sign of germination. I remember getting a few seed of *A.lucasii* when I was leader and the only report of germination I got was from Jeff Irons (from England) after quite a lot of patience. I could not get my lot to germinate.

I enclose two photos of the *A.leprosa* "Scarlet Blaze". A press release about it is in the Victorian Newsletter – Sept. 2001. Warnambool & District SGAP bought a plant of it for the Tourist Information Centre garden in Warnambool, which it has established and tended since 1998 (?).

The photos are features on the coloured plates page. Since printing these photos an article on' Scarlet Blaze' has appeared in the Dec, 2001 edition of Australian Plants.

As our local flower show coincided with Wattle Day a verse competition was run on the subject. I don't think the quality was particularly high but Ken Arthur had a good idea which with due acknowledgment to Ken I adapted for our local newsletter as follows:

The Possum and the Wattle

I was a little wattle tree that tried and tried to blossom.
But couldn't 'cause my leaves and buds were eaten by a possum.
One dark night it happened that she tried to fly,
Just as a semi-trailer on the road was passing by.
The headlight beams they caught her, just as she went SPLAT!
And that possum that had eaten me was laid out nice and flat.
Beneath my canopy now she lies, dead and all alone,
Steadily decaying to nutritious blood and bone.
I now am a BIG wattle, quite a glorious thing,
With thousands of golden flowers heralding the spring.

Ken is an SGAP member – other entrants weren't.

Bruce also enclosed a copy of a paper titled 'Hybridisation Techniques for Acacias'. by Margaret Sedgley, Jane Harbard and Rose –Marie Smith, published by the Australian Centre for International Agricultural Research, Canberra in 1992. This is very detailed and rather than seek permission to publish it I will keep it as 'library' item which can be borrowed by members.

Seed Bank

Thanks to Arthur Dench for fresh seed of *A.macradenia*.

I have finally compared all the names on the seed list with those on the 'Wattle' disc. The names listed below do not appear on the disc so presumably do not now exist. If anyone knows what these species are now called or have grown any plants with these names please let me know. Some may be misspellings eg *hastula* may be *hastulata*. For the time being I will leave them on the list while I try to find out more about them.
A.adenophora, bakleyi, baueriana, hastula, salicifolia.

The following have been altered to their new names

brevifolia	now *lazarides*
curvinervia	now *julifera ssp curvinervia*

cometes now *lachnophylla*
linophylla now *ramulosa subsp linophylla*
rotundifolia now *acinacea*
cyclophylla now *acinacea*
paniculatum now *racospermoides*
subglauca now *leptopetala*
tanumbirinensis now *plectocarpa subsp tanumbirinensis*

An updated seed list will be included in the next newsletter.

New members

Welcome to new members

Bonnie Addison-Smith who is a member of the Warwick SGAP.

Dr Stanley Webster who has recently moved to a rural block near Byron Bay where he and his daughter plan to grow acacias as a hobby.
For the past nine years he has been a volunteer at the Perth Herbarium and has spent most of that time identifying acacias using first the Flora Key and then the computer interactive Key.

The Australian National Botanic Gardens has also rejoined.

A list of members will be included in the next newsletter.

Acacia Ring Barking Beetles
Cerambycids, longicorn or longhorn beetles
Family Cerambycidae

Most larvae of this large family of beetles eat wood and some are major pests in timber plantations. Some are borers in acacias and a few of these go in for ring barking acacia branches. These, in particular, are dealt with here. Others will be featured in future newsletters.

Cerambycid beetles are definitely insects that should be discouraged from visiting your acacias. They are commonly called longicorn or longhorn beetles because they usually have antennae at least two thirds of their body length and sometimes much longer. They are elongate rectangular in outline and often coloured to fit in with their background. The edges of their eyes are notched and the bases of the antennae fit in the notches. They have large mandibles which can pack quite a punch. These are obviously necessary for chewing bark but in the larger species of this family they are also useful weapons against interfering humans or dogs. The genus *Acacia* is not the only one that is ring barked and similar damage occurs locally (Booie) on a variety of other plants including casuarinas and jacksonias.

The first sign of a problem is the dieback of a branch – usually one about a centimeter in diameter. Looking back along the branch a series of girdles will be found where the bark has been eaten ie the branch is ring barked. I have never seen just one girdle but usually anywhere from two to five. If you search carefully above this girdling you will find a small notch in the bark. Sometimes this is over ten centimeters above the girdling. This is where the adult female has prepared a spot to lay her eggs.

Water and minerals are transported from the roots of a plant to the green tissues (leaves, phyllodes, some stems) through vessels in the interior of the plant stem (xylem or heartwood). Photosynthesis takes place in the green tissues and the carbohydrates formed are transported back to the rest of the plant, including the roots, via vessels in the outer part of the stem (phloem or sapwood). Between the two sets of vessels is a narrow ring of cells called the cambium which is constantly dividing to produce new vessels. The phloem

and cambium are destroyed in ring barking and carbohydrates can no longer move out of the branch so accumulate as starch above the girdling. In some cases there is actually a swelling of the stem above the girdle because of this accumulation. Eventually the branch above the girdle dies.

The larva of the longicorn beetle, which is legless, hatches in the notch and moves into the specially prepared branch where the accumulation of starch gives it a good start in life. It feeds and pupates there. Sometimes the branch will snap off at the girdling but the larva will continue to feed and grow within the fallen branch.

This is a particularly frustrating pest as the damage is not noticeable until it is too late to do any thing about it. I have only once seen a female on the job and evidently they are normally active at night. If you just break off the dying branch the beetle lave will not be at all distressed but continue its development into an adult. The branch needs to be destroyed to kill the lava.

It is generally accepted that only weakened or stressed plants are attacked extensively by these beetles but it seems to me that some 'foreigners' even if they are doing well are also targeted. Years ago I wanted a quick screen so I planted a row of twenty *A.saligna*. This was in a bayside area near Brisbane. Obviously they were well away from their normal habitat in WA but this is a very adaptable species and has, in the past, been commonly used for revegetation on local islands following sand mining. The season was a good one and the plants certainly grew very well and were over six feet in height and bushy after twelve months. A year later they were all dead. Almost every branch around a centimeter in diameter had been ring barked. It was difficult to find a ring barked branch on the local acacias so something had made the introduced species very attractive.

Does anyone have any comments?

Black and white photos.

1. Branch of *A.decora* showing ring barking (A) and the notch (B) where the longicorn beetle has laid its eggs.

2. Longicorn beetle commonly seen on acacias. The head position (vertical to the long axis of the body) is typical of the longicorns attacking wattles. Note the long antennae and body shape.

3. This is a ring in. The larva of this longicorn (*Phoracantha semipunctata*) is a borer in eucalypts but it is so common and such a good example of a longicorn that I decided to include it. Also the head was easy to photograph. This beetle is about 2.5cm long and often comes to lights at night. Here the head is almost parallel to the long axis of the body.

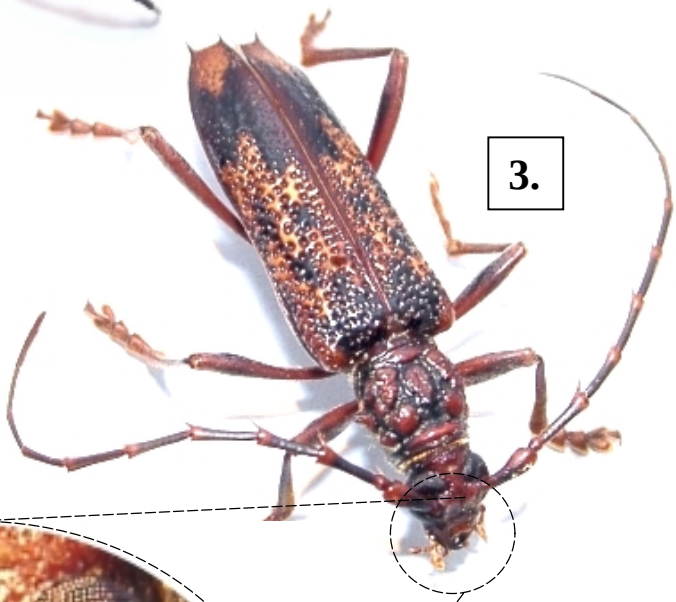
4. Close up of the head of the above longicorn showing two characteristic features - the base of the antenna (C) partially surrounded by the notched eye (D) and the large mandibles (E).

5. Simplified diagram of a cross section of a woody stem showing the position of the xylem or heartwood (F), phloem or sapwood (G) and bark (H).

6. Simplified diagram of a longitudinal section of a stem showing ring barking.


1.
(B)
(A)
(A)
(A)
(A)


2.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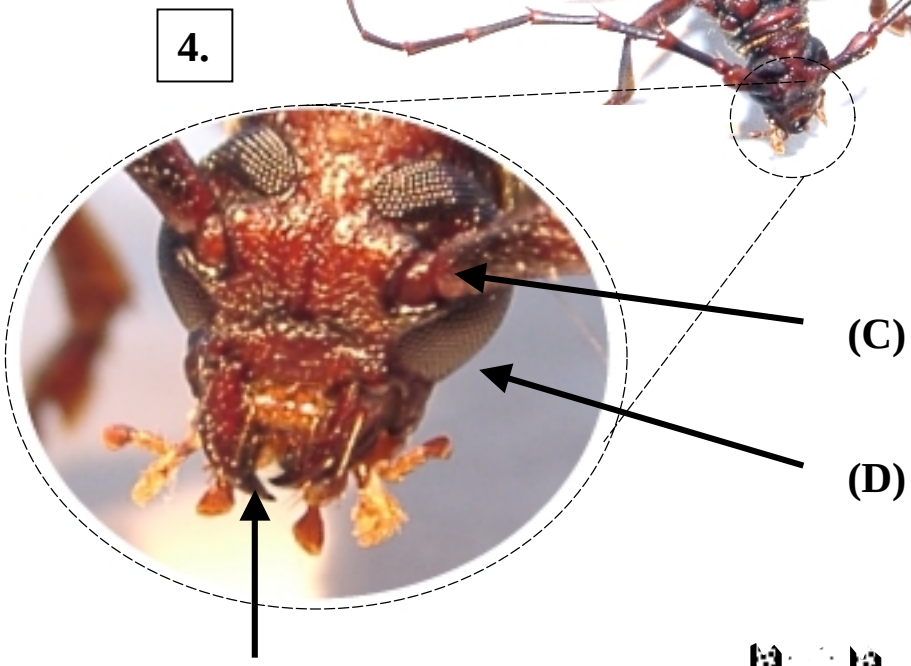
4.
(C)
(D)
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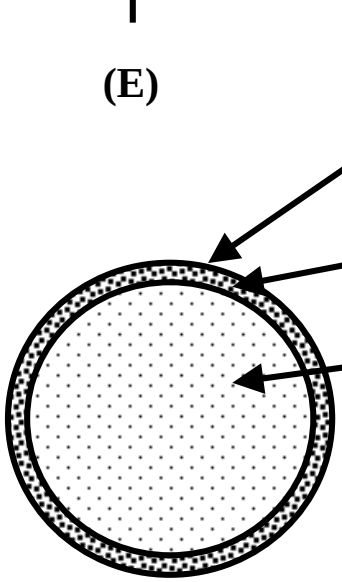
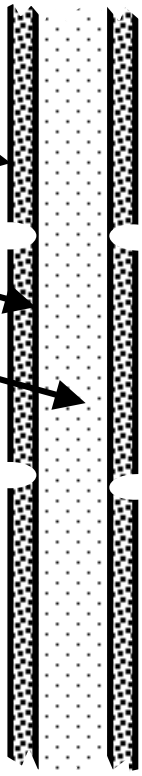

(H)
(G)
(F)
5.


6.

Coloured plates

1. *A.leprosa* 'Scarlet Blaze' (photo supplied by Bruce Clark)

2. Close up of flowers in above photo (photo supplied by Bruce Clark)

   This species has a very scattered distribution in eastern Australia from near Monto in Queensland to Victoria. How adaptable this variant will be is yet to be seen. The only attempts, to grow it in Queensland, that I know of, are at Toowoomba on the Darling Downs.

   The following two species flowered in March.

3. *A.complanata* (flat stemmed wattle) cultivated at Booie. This plant is about 1.5 meters tall and has flowered several times. Flowering seems to occur any time during the warmer months, particularly following good rain. This species will grow to four to five meters according to the 'Wattle' CD but only to two meters according to Grace Lithgow in '60 Wattles of the Chinchilla and Murilla Shires'. I have not seen any plants over about two meters. It occurs in SE Qld and northern coastal NSW usually in dry forest areas over sandstone. An open shrub, usually with foliage to the ground, it is very attractive in flower. At Booie it is surviving in very shallow soil without the benefit of extra water. It has survived very dry periods but looked as though it would appreciate a drink. However it bounces back rapidly after rain and continues to flower well.

4. Close up of flowers and phyllodes of *A.complanata*. The flat stems that give this species its common name can be seen.

5. *A disparrima subsp disparrima* in habitat near Kingaroy. This species was formally part of *A.aulacocarpa* but was separated from it in 2000. The most obvious difference is the pale yellow flowers in *disparrima* as opposed to the bright golden ones of *aulacocarpa*. Other differences are listed on the 'Wattle' CD.
   This species occurs in the coastal and near coastal areas of Qld and northern NSW. It is common around Brisbane and Kingaroy (my stamping grounds). The plant in this photo is growing in very fertile, well drained, red soil and its size can be estimated by comparison will the car in the photo. On the infertile, shallow soils of the area, plants are much smaller but are still dense bushy shrubs if they are growing in the open.

6. Close up of the flowers and phyllodes of *A.disparrima subsp disparrima*.

Unless otherwise stated photos and articles by Thais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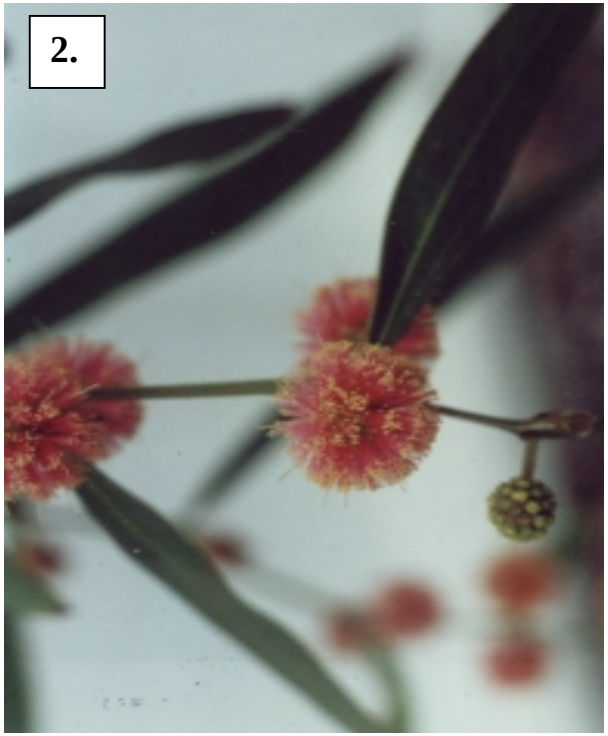
3.


5.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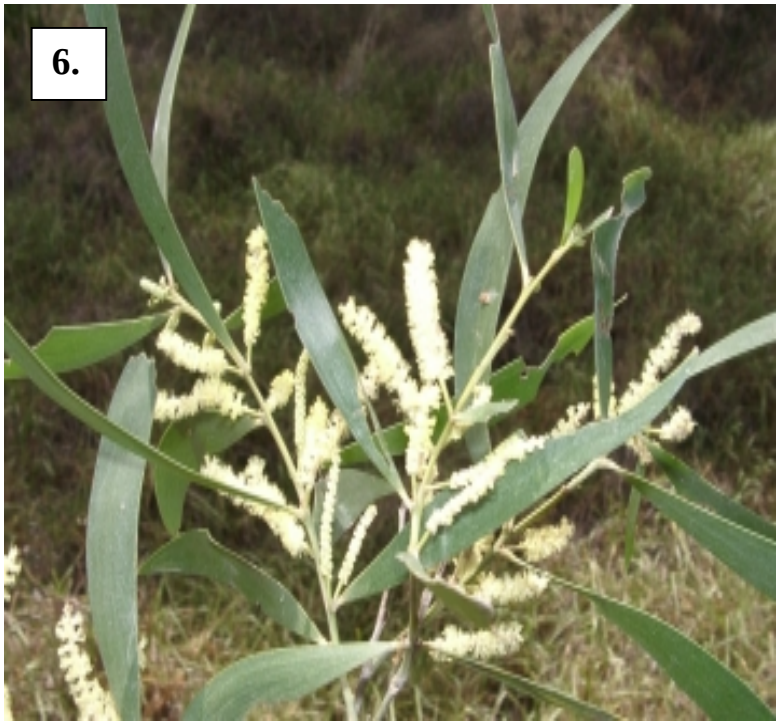
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