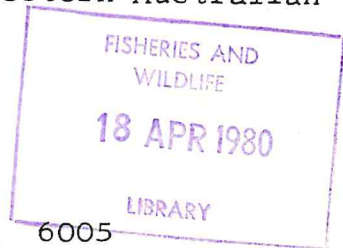


Notes on the Biology and Phytogeography of Western Australian  
Plants : Part 3 : Juncaginaceae.

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Abstract:

The Juncaginaceae of Western Australia are annual or perennial herbs, occupying winter wet habitats throughout the State. All species are wind pollinated and self fertile. The highest species diversity in the Lower South Western Botanical Province, but more collecting is needed.

To be quoted as:

Keighery, G.J. (1979) "Notes on the Biology and Phytogeography of Western Australian Plants Part 3 : Juncaginaceae."  
Kings Park Unpub. Report .

## Introduction:

Triglochin L. is a cosmopolitan genus of approximately 18 species. Extra Australian species are all perennial herbs inhabiting shallow brackish or fresh water environments.

Although the genus is cosmopolitan in distribution, the majority of species (15 of the total of 18) are restricted to Australia. Fourteen species occur in Western Australia, and several are endemic.

The genus is given a brief treatment in Beard (1970), with no information on individual species.

## Biology:

The perennial species (T. procera and T. striata) are found in submerged or very moist habitats. Triglochin procera in ephemeral swamps oversummers as a tuberous rhizome, new leaves being produced each winter.

The annuals are found in winter wet microhabitats, ie. soil filled depressions, clay pans or swamps. Even under ideal conditions in the glasshouse they die with the onset of summer, and are strictly annual in habit.

## Breeding Systems:

All species are wind pollinated and self fertile (Keighery 1975 and 1980), but the annual species possess a greater capability to inbreed.

## Phytogeography:

Triglochin is probably distributed throughout Western Australia (fig. 1) The lack of records from the Pilbara is perhaps attributal to a lack of collecting rather than true absence.

The highest diversity is in the South West Botanical Province, but the biased nature of current collections, (ie. the high number on the Perth Sheet (10), and the low number on the Augusta sheet (4)) precludes any further analysis.

More collections of Triglochin species are needed from the South West and searches are needed in the Pilbara.

## References:

Keighery, G.J. (1975) "Breeding Systems of the Western Australian Flora I Triglochin L. (Juncaginaceae)." West. Aust. Naturalist 13 : 81-84.

Keighery, G.J. (1980) Floral Biology Notes. III.

Triglochin hexaptera (Juncaginaceae) Kings Park Res. Notes. (in press).

Notes on the biology/ecology of individual species.

TRIGLOCHIN

T. calcitraba Hook.

Tufted annual herb, to 15 cm, fls inconspicuous,  
7-10-(1).  
granite rocks, red yellow or peaty sands, clay,  
limestone.

T. sp. aff. calcitraba

Tufted annual herb, to 10 cm, fls. inconspicuous,  
?-9-?  
sand, sandy clay.

T. centrocarpa Hook.

Tufted annual herb, to 15 cm, fls. inconspicuous,  
7-11-(12).  
sand, laterite, clay, granite rocks.

T. centrocarpa var brevicarpa Ostenf.

Tufted annual herb, to 20 cm, fls. inconspicuous,  
8-10.  
sand, limestone.

T. sp. aff. centrocarpa

Minute decumbent annual, fls inconspicuous,  
?-9-?  
beach.

T. maundii F. Muell.

No data (record doubtful).

T. hexagona J.M. Black

Tufted decumbent annual herb, to 5 cm, fls  
inconspicuous., 6-10.  
Salt lakes.

T. sp. aff. hexagona

Tufted decumbent annual herb, fls. inconspicuous,  
?-7-?  
?

T. minutissima F. Muell.

Tufted annual herb, to 15 cm, fls. inconspicuous,  
(7)-8-10.  
swamps, sand, granite, clay, saline pools.

T. mucronata R.Br.

Decumbent annual herb, to 10 cm, fls. inconspicuous,  
8-10.  
swamps, yellow or peaty sands, seepages, clay,  
salt lakes.

T. muelleri Buch.

Tufted annual herb, to 10 cm, fls inconspicuous,  
?-10-?  
black swampy sands, clay.

T. procera R. Br.

Robust perennial rhizomatous herbs, with tuberous  
roots, leaves to 2 m long, fls. yellow or green  
5-8-1 (probably all year under favourable conditions).  
Fresh water streams or pools, winter inundated  
swamps, drains or clay pans.

(Material from the Northern Botanical Province has  
thin narrow leaves. If it is considered a separate  
species then the name T. pterocarpa W.V. Fitz.  
applies to these collections.)

T. stowardii N.E. Brown

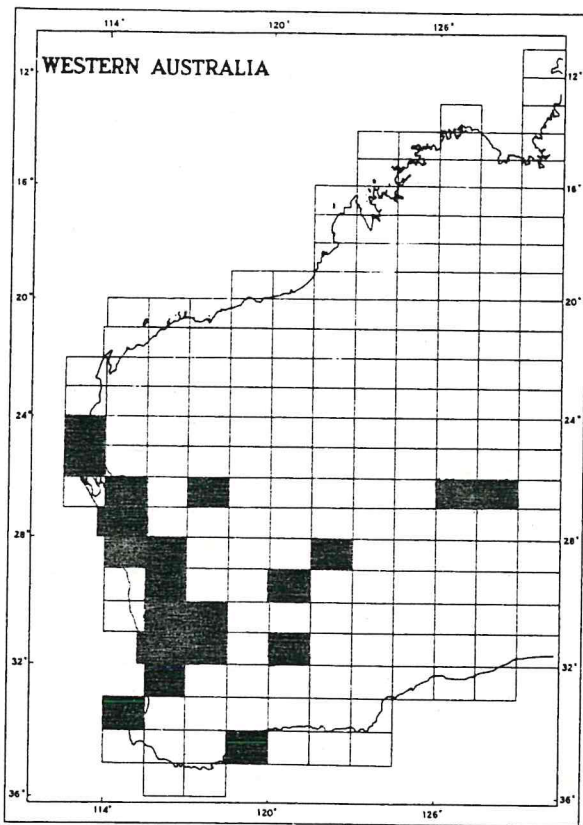
Tufted annual herb, to 10 cm, fls. inconspicuous,  
9-10.  
clay, swampy sands, salt lakes.

T. striata Ruiz. et Pav.

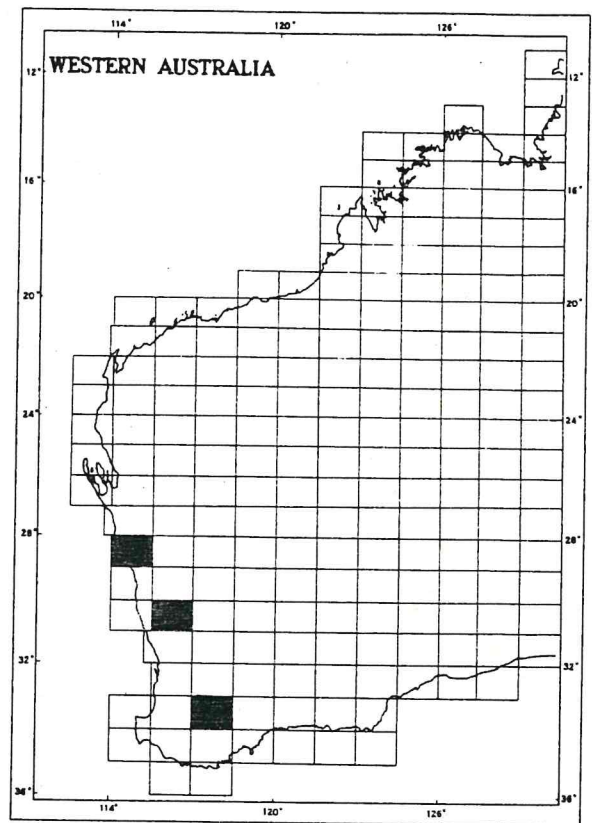
Stoloniferous perennial herb, leaves and  
inflorescences to 15 cm, fls. inconspicuous,  
all year round with a summer peak.  
Saline inlets, swamps or creeks, fresh water  
seepages or creeks.

T. trichophora Nees. ex Endl.

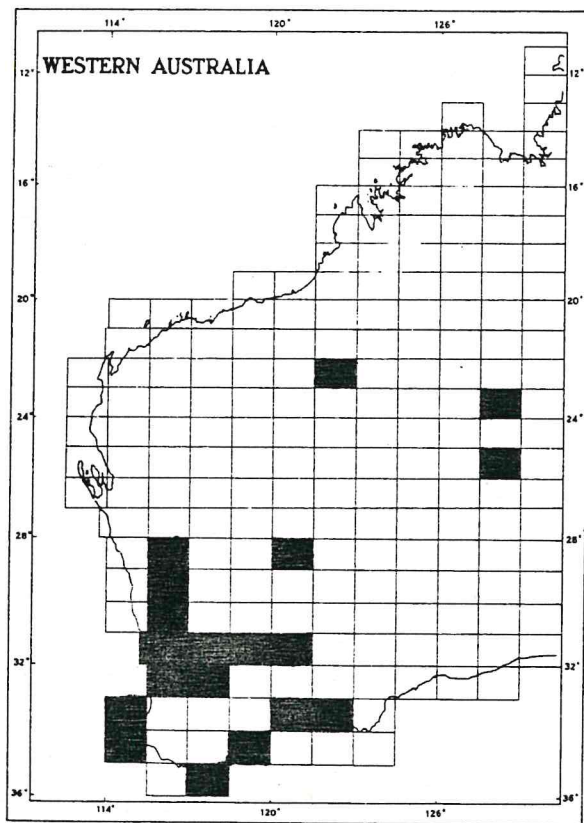
Tufted annual herb, to 10 cm., fls. inconspicuous,  
7-10.  
swamps, sand, limestone.



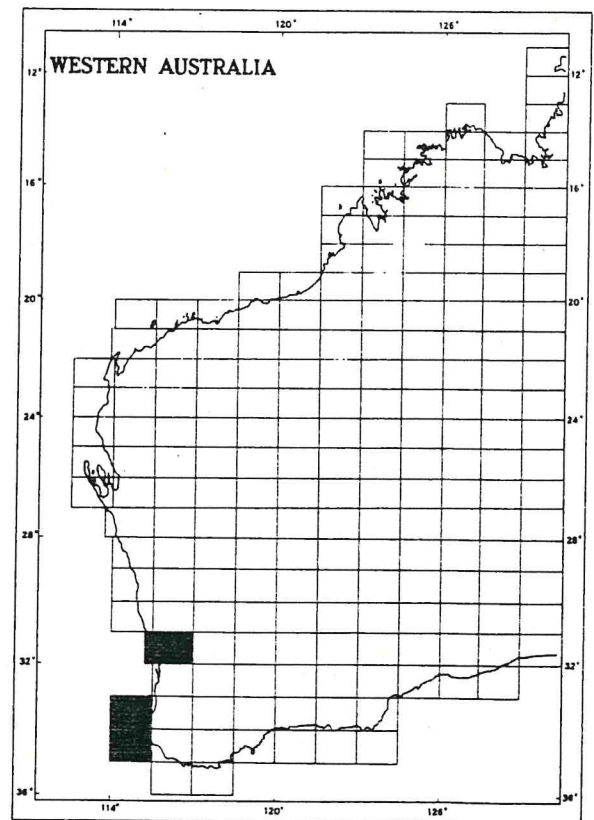
*Triglochis calcitrapa*



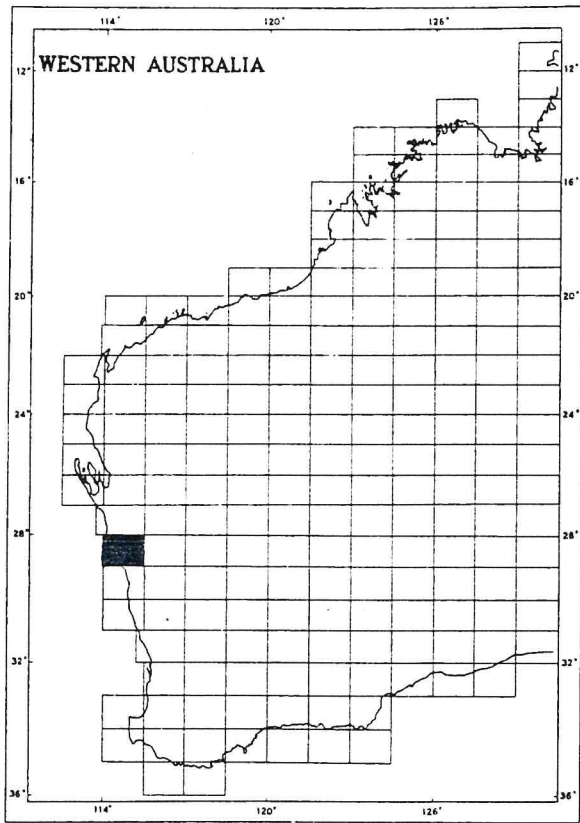
*T. sp. aff calcitrapa*



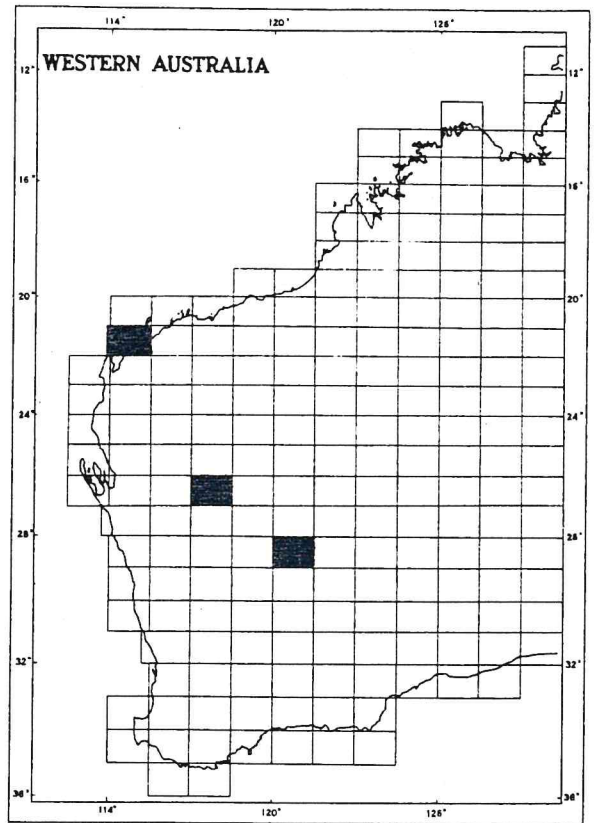
*T. centrocarpa*



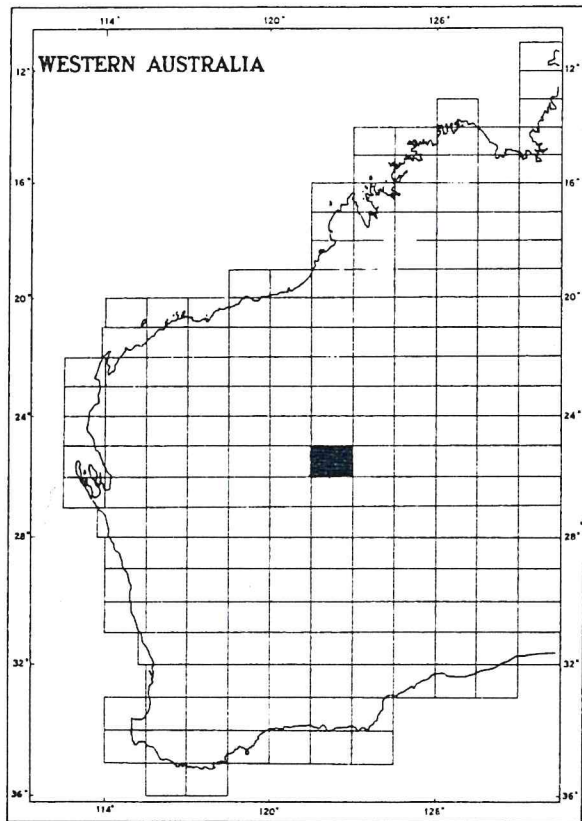
*T. centrocarpa* var *brevicarpa*



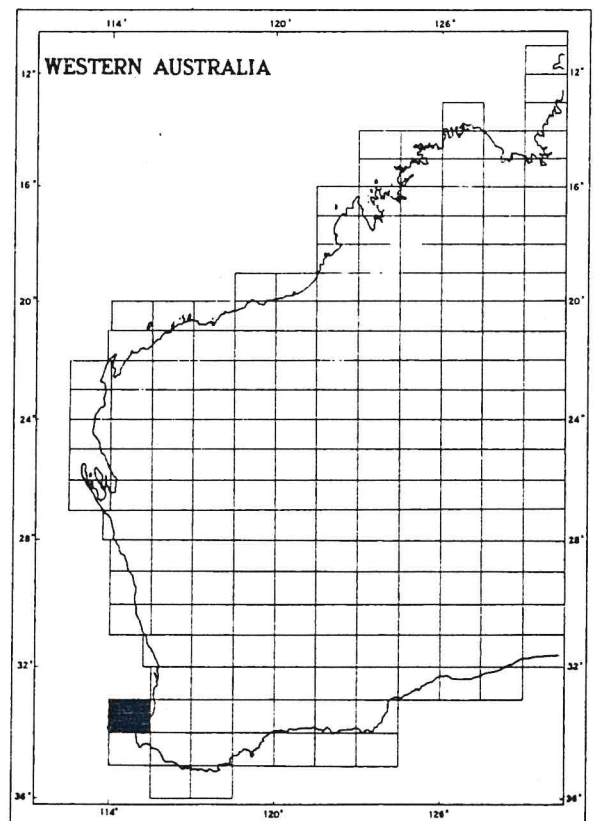
*T. sp aff centrocarpa*



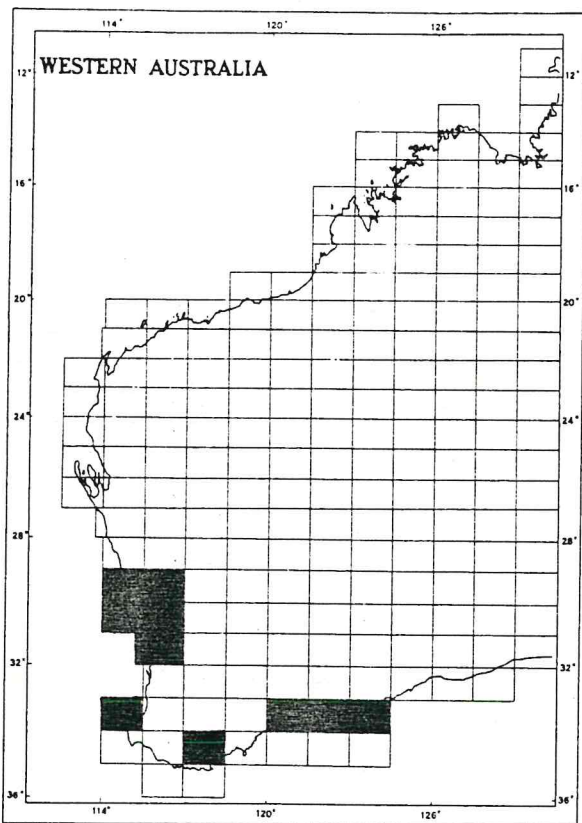
*T. hexagona*



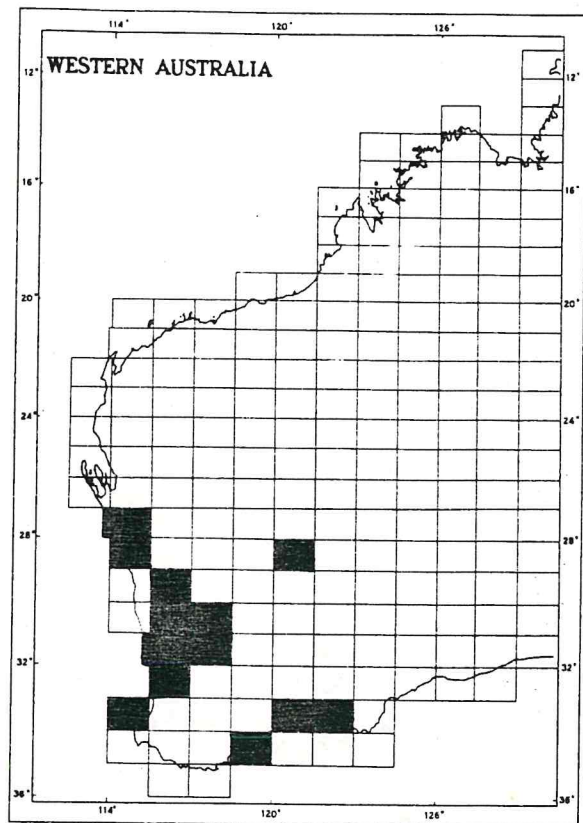
*T. sp. aff hexagona*



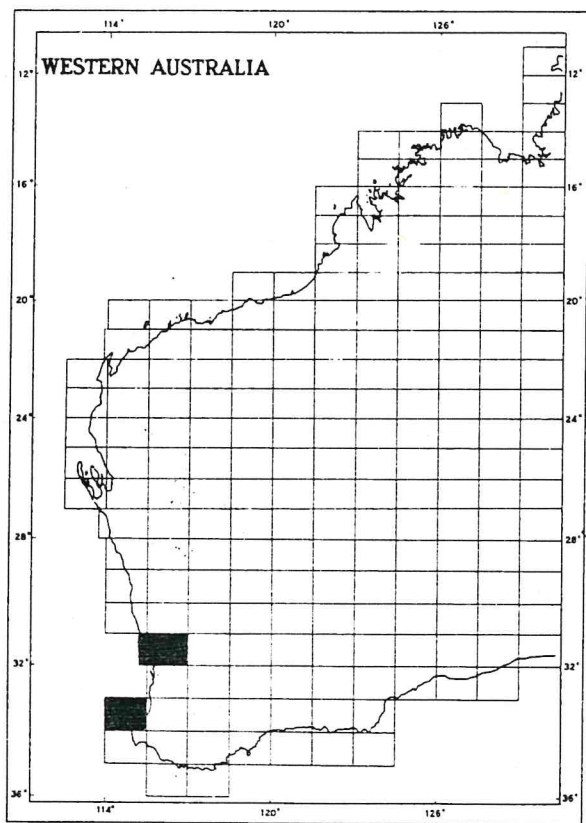
*T. maundii*



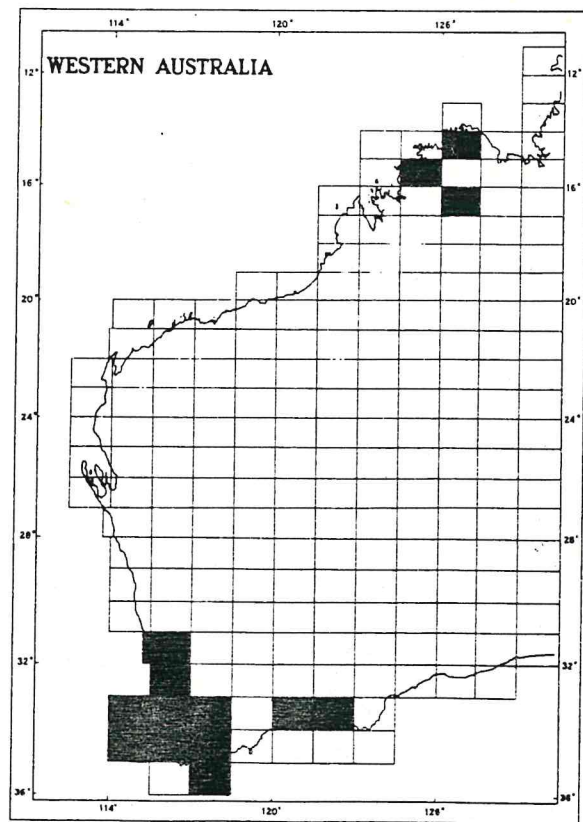
*T. minutissima*



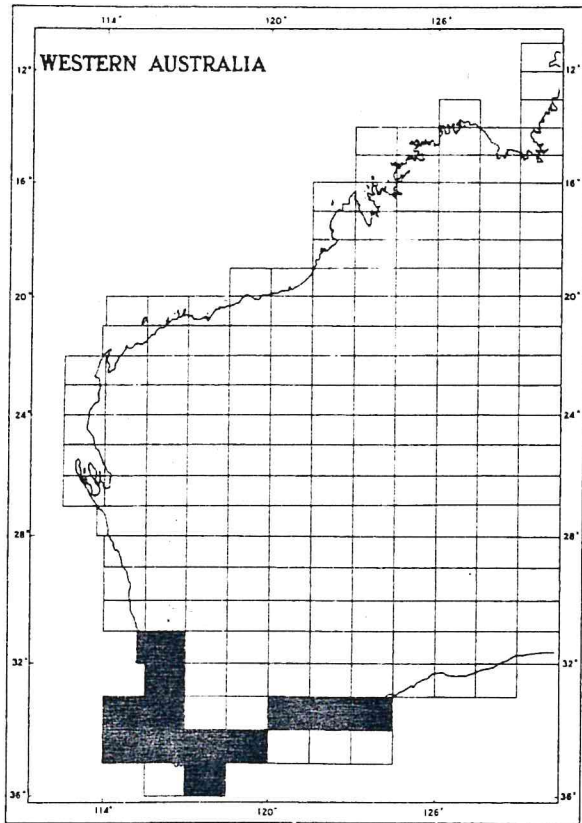
*T. mucronata*



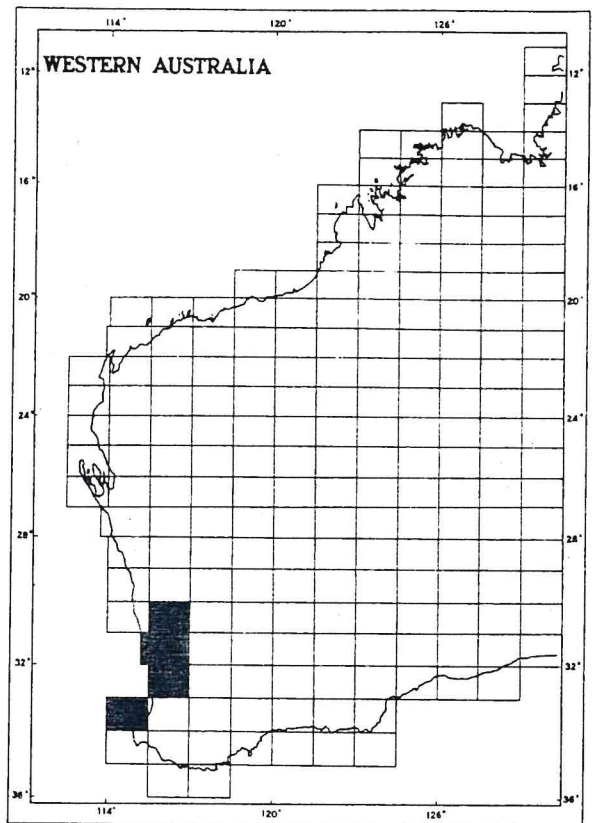
*T. muelleri*



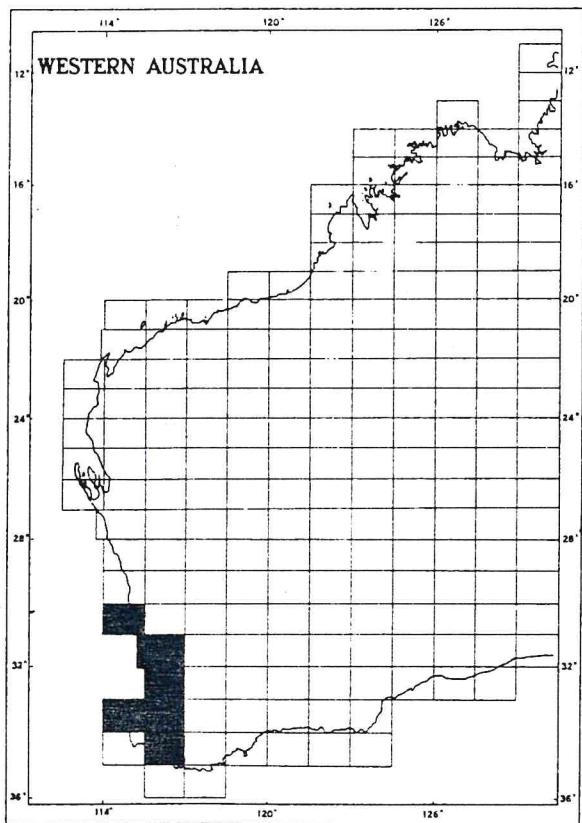
*T. procera*



*T. striata*



*T. stowardii*



*T. trichophora*

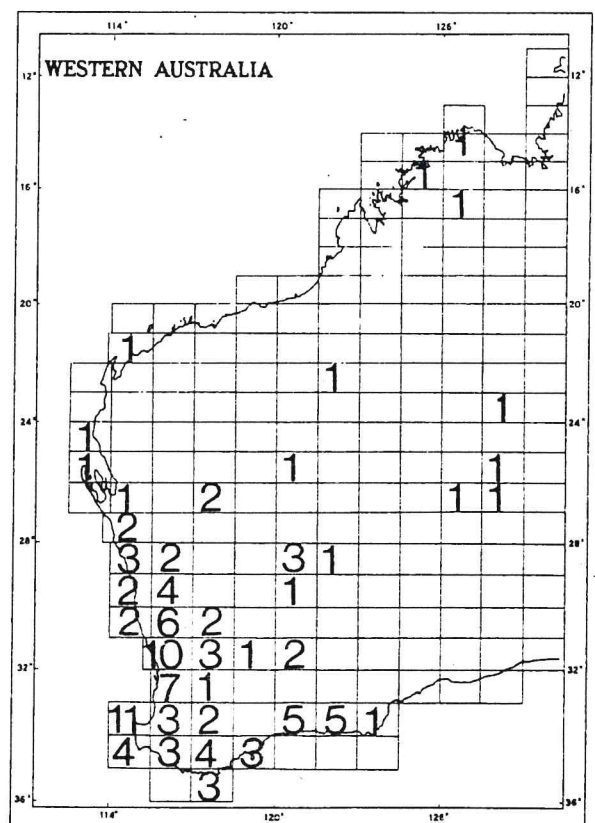


Fig. I : species diversity per grid square.