

QUEENSLAND HOST RECORDS FOR THE DACINAE (fam. Trypetidae). FIRST SUPPLEMENTARY LISTS

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SUMMARY.

Further host records for the Dacinae in Queensland, recorded since the publication of the original host lists in 1953, are tabulated. The data are, in general, presented in the same form, although for convenience the progressive host scores for species are given.

New records are presented for the economic species in Queensland. *Strumeta tryoni* (Frogg.) has now been bred from 114 hosts.

This paper tabulates records obtained since the publication of the original host lists (May 1953), and the data are, in general, presented in the same form. Three new unpublished records, taken from the fruit fly collection of the University of Queensland, are included.

In Section 1, for convenience, the total numbers of hosts recorded for each species are also given, and conform to a pattern—e.g., 2:1:3(+2) denotes 2 commercial, 1 ornamental and 3 wild hosts with 2 further wild host records doubtful or unconfirmed.

New records are presented for the economic species in Queensland. *Strumeta tryoni* (Frogg.), the most important of these, has now been bred from 114 hosts.

Of the five species of Dacinae described (May 1956) during the past three years, hosts of only three are known, while of the 44 species of Dacinae recorded from Queensland, wild hosts of nine are still unknown.

SECTION 1.

Fruit Fly—Host List.

This list contains progressive host scores for 14 genera with 44 species.

AFRODACUS Bezzi.

Afrodacus brunneus Perk. & May.

(0:0:0)

Afrodacus jarvisi (Tryon).

(6:0:4(+1))

Afrodacus mesoniger May.

Wild Hosts.

Lauraceae.

Cinnamomum oliveri F. M. Bail.—Sassafras: December.

Cinnamomum virens R. T. Baker: February.

(0:0:5)

Afrodacus tigrinus May.

(0:0:0)

ASIADACUS Perk.

Asiadacus calophylli Perk. & May.

(0:0:1)

AUSTRODACUS Perk.

Austrodacus cucumis (French).

Commercial Host.

Cucurbitaceae.

Luffa cylindrica Roem. (= *L. aegyptiaca* Mill.)—Vegetable sponge:

May—oviposition through scars in rind of near-mature fruits.

(9:0:2(+1))

CALLANTRA Walk.

Callantra aequalis (Coq.).

Wild Host.

Asclepiadaceae.

Marsdenia rostrata R.Br.: March. The larvae feed in the spongy tissues surrounding the central seed cavity. Pupation takes place within the fruits, and the adults emerge after the fruits, which do not fall when ripe, split open to release the kapok-like seeds.

(0:0:1)

Callantra auricoma May.

Commercial Host.

Cucurbitaceae.

Trycosanthes anguina L.—Guada bean: November. No wild hosts have been recorded for this species.

(1:0:0)

Callantra petioliforma May.

(0:0:0)

DACULUS Speis.

Daculus murrayi Perk.

(0:0:1)

DIPLODACUS May.

Diplodacus signatifer (Tryon).
(0:0:1)

HETERODACULUS Hardy.

Heterodaculus visendus Hardy.
Wild Host.

Guttiferae.

Garcinia warrenii F. Muell.—A Native mangosteen: November.
(0:0:2)

MELANODACUS Perk.

Melanodacus niger (Tryon).
(0:0:3)

NEODACUS Perk.

Neodacus newmani Perk.
(0:0:0)

Neodacus signatifrons May.
(0:0:0)

NEOZEUGODACUS May.

Neozeugodacus aglaiae (Hardy).
(0:0:2)

Neozeugodacus aureus May.
(0:0:1)

PARATRIDACUS Shiraki.

Paratridacus expandens (Walk.).
Wild Host.

Guttiferae.

Garcinia gibbsae Sp. Moore—a Native mangosteen: September—quite prevalent in this host.

POLISTOMIMETES Enderlein.

Polistomimetes absonifacies May.
Wild Host.

Asclepiadaceae.

Marsdenia rostrata R.Br.: December. One specimen only was bred from an immature fruit. This species has been recorded frequently in lure traps in South Queensland.

(0:0:1)

STRUMETA Walk.**Strumeta alyxiae** May.

(0:0:1)

Strumeta bancroftii (Tryon).

(0:0:1)

Strumeta barringtoniae (Tryon).

(0:0:1)

Strumeta bilineata Perk. & May.

(1:0:3(+1))

Strumeta breviaculeus Hardy.

Wild Host.

Euphorbiaceae.

Glochidion ferdinandii Muell. Arg.: August and November (UQ).

(0:0:2(+1))

Strumeta bryoniae (Tryon).

(0:0:5)

Strumeta cacuminata Hering.

(3:0:3)

Strumeta endiandrae Perk. & May.

Wild Host.

Lauraceae.

Endiandra cowleyana F. M. Bail.: September.

(0:0:6(+1))

Strumeta fagraea (Tryon).

(0:0:3)

Strumeta fuscatus Perk. & May.

(0:0:2(+1))

Strumeta halfordiae (Tryon).

Wild Hosts.

Smilacaceae.

Smilax australis R.Br.—a Wait-a-while: December. Only one specimen was bred from a large collection of fruits.

Myrtaceae.

Eugenia crebrinervis C. T. White—a Water gum: February and March—bred in large numbers.

Rutaceae.

Acronychia pubescens (F. M. Bail.) C. T. White (= *Melicope pubens* F. M. Bail.): December.

Thymelaeaceae.

Phaleria chermsideana (F. M. Bail.) C. T. White: March.
(5:2:11)

Strumeta humeralis (Perk.).

Commercial Hosts.

Annonaceae.

Annona squamosa L.—Custard apple: September—occasional specimens among numbers of *S. tryoni*.

Palmae.

Phoenix dactylifera L.—Date palm: February—a coastal record.

Rosaceae.

Fragaria × *ananassa* Dene. (*F. indica* Andr. of May 1953)—Strawberry: December. This is a chance record from a home garden in Brisbane. The fruits were attacked in the ripe state on plants exhibiting molybdenum deficiency.

Ornamental Host.

Rutaceae.

Casimiroa edulis Llave & Lex.—White sapote: January.
Wild Hosts.

Annonaceae.

Cananga odorata (Lam.) Hook.f. & Thoms.—Ylang-ylang: July (UQ).

Celastraceae.

Elaeodendron australe Vent.: February.

Combretaceae.

Terminalia catappa L.—Tropical almond: February. Large numbers emerged from this host in association with *S. tryoni* and *A. jarvisi*.

Lauraceae.

Endiandra cowleyana F. M. Bail.: September—large numbers in association with *S. endiandrae*.

Myrtaceae.

Eugenia australis Wendl. ex Link (= *E. paniculata* Banks & Sol. ex Gaertn.)—Scrub or creek cherry: February.

Eugenia tierneyana F. Muell.: February—in association with *S. kraussi* Hardy.

Rhodomyrtus macrocarpa Benth.—Finger cherry: September—occasional specimens only.

Rubiaceae.

Nauclea orientalis L. (= *Sarcocephalus cordatus* (Roxb.) Miq.)—Leichhardt tree or canary wood: April. This record was established in South Queensland.

(20:5:20(+1))

Strumeta kraussi Hardy.

Wild Host.

Rutaceae.

Halfordia scleroxylo F. Muell.—Northern saffron heart: October.

H. scleroxylo is closely related to *H. kendack* (Montr.) Guillaum., the type host of *S. halfordiae*, and may prove no more than varietally distinct. The former has reddish fruits and occurs north of Townsville, so far as known, while the latter has bluish fruits and occurs in the subtropics.

(0:2:19)

Strumeta melas Perk. & May.

Commercial Hosts.

Palmae.

Phoenix dactylifera L.—Date palm: February—a coastal record.

Rutaceae.

Citrus sinensis Osbeck—Orange: February—occasional specimens only.

(8:0:2)

Strumeta musae (Tryon).

This species was seen ovipositing in a ripe mandarin (*Citrus reticulata* Blanco) at South Johnstone, North Queensland, but larvae failed to develop.

(2(+1):0:1(+2))

Strumeta mutabilis May.

(1:0:0)

Strumeta notatagena May.

(0:0:0)

Strumeta pallidus Perk. & May.

(0:0:1)

Strumeta phaleriae May.

Wild Host.

Thymelaeaceae.

Phaleria blumei (Dene.) Benth. var. *latifolia* Benth.: June.

(0:0:1)

Strumeta pulcher (Tryon).

(0:0:1)

Strumeta recurrens Hering.

(0:0:1)

Strumeta strigatus (Perk.).

(0:0:0)

Strumeta tryoni (Frogg.).

Commercial Host.

Rosaceae.

Rubus ursinus Cham. & Schlecht. var. *loganobaccus* L. H. Bail.—
Loganberry: November. Heavily infested.

Ornamental Host.

Rutaceae.

Casimiroa edulis Llave & Lex.—White sapote: January.

Wild Hosts.

Annonaceae.

Cananga odorata (Lam.) Hook.f. & Thoms.—Ylang-ylang: July (UQ).

Apocynaceae.

Carissa ovata R.Br.—Currant bush: November—a confirmation of
record (see May 1953, p. 31).

Lauraceae.

Endiandra cowleyana F. M. Bail.: September—only occasional specimens
amongst large numbers of *S. endiandrae* and *S. humeralis*.

Myrtaceae.

Acmena macrocarpa C. T. White—a Water gum: April. A few
specimens emerged with large numbers of *S. kraussi*.

Eugenia kuranda F. M. Bail.—Cherry penda: November—a few
specimens only.

Vitaceae.

Cissus sp.—A Native grape: December. This undetermined host, collected
near Toowoomba, is distinct from *C. antarctica* Vent.

(41:10:63(+3))

ZEUGODACUS Hendel.

Zeugodacus atrisetosus Perk.

(0:0:1)

Zeugodacus synnephes (Hendel).

(0:0:1)

SECTION 2.

HOST—FRUIT FLY LIST.

Botanical Name.	Common Name.	Species Recorded.	Remarks.
ANNONACEAE			
<i>Annona squamosa</i> L. . .	Custard apple . .	<i>Strumeta humeralis</i>	Occasional specimens.
<i>Cananga odorata</i> (Lam.) Hook.f. & Thoms. . .	Ylang-ylang . .	<i>Strumeta humeralis</i> <i>Strumeta tryoni</i> . .	
APOCYNACEAE			
<i>Carissa ovata</i> R. Br. . .	Currant bush . .	<i>Strumeta tryoni</i> . .	A confirmed record. (See p. 35).
ASCLEPIADACEAE			
<i>Marsdenia rostrata</i> R. Br.		<i>Callantra aequalis</i> . . <i>Polistomimetes</i> . . <i>absonifacies</i>	From immature fruit.
CELASTRACEAE			
<i>Elaeodendron australe</i> Vent.		<i>Strumeta humeralis</i>	
COMBRETACEAE			
<i>Terminalia catappa</i> L.	Tropical almond . .	<i>Strumeta humeralis</i>	
CUCURBITACEAE			
<i>Luffa cylindrica</i> Roem.	Vegetable sponge . .	<i>Austrodacus cucumis</i>	
<i>Trycosanthes anguina</i> L.	Guada bean . .	<i>Callantra auricomma</i>	
EUPHORBIACEAE			
<i>Glochidion ferdinandii</i> Muell. Arg.		<i>Strumeta breviaculeus</i>	
GUTTIFERAE			
<i>Garcinia gibbsae</i> Sp. Moore	A Native mangosteen	<i>Paratridacus expandens</i>	
<i>Garcinia warrenii</i> F. Muell.	A Native mangosteen	<i>Heterodaculus visendus</i>	
LAURACEAE			
<i>Cinnamomum oliveri</i> F. M. Bail.	Sassafras	<i>Afrodacus mesoniger</i>	
<i>Cinnamomum virens</i> R. T. Baker		<i>Afrodacus mesoniger</i>	
<i>Endiandra cowleyana</i> F. M. Bail.		<i>Strumeta endiandrae</i> <i>Strumeta humeralis</i> <i>Strumeta tryoni</i> . .	In large numbers. In large numbers. Occasional specimens.
MYRTACEAE			
<i>Acmena macrocarpa</i> C. T. White	A Water gum . .	<i>Strumeta tryoni</i> . .	Occasional specimens.
<i>Eugenia australis</i> Wendl. ex Link	Scrub or creek cherry (Creek lilly pilly)	<i>Strumeta humeralis</i>	
<i>Eugenia crebrinervis</i> C. T. White	A Water gum . .	<i>Strumeta halfordiae</i>	Usually infested.
<i>Eugenia kuranda</i> F. M. Bail.	Cherry penda . .	<i>Strumeta tryoni</i> . .	Occasional specimens.

HOST—FRUIT FLY LIST—continued.

Botanical Name.	Common Name.	Species Recorded.	Remarks.
MYRTACEAE—continued			
<i>Eugenia tierneyana</i> F. Muell.		<i>Strumeta humeralis</i>	
<i>Rhodomyrtus macrocarpa</i> Benth.	Finger cherry ..	<i>Strumeta humeralis</i>	Occasional specimens.
PALMAE			
<i>Phoenix dactylifera</i> L.	Date palm	<i>Strumeta humeralis</i> <i>Strumeta melas</i> ..	A coastal record. A coastal record.
ROSACEAE			
<i>Fragaria × ananassa</i> Dcne.	Strawberry	<i>Strumeta humeralis</i> ..	Ripe fruit attacked. (See p. 33).
<i>Rubus ursinus</i> Cham. & Schlecht. var. <i>loganobaccus</i> L. H. Bail.	Loganberry	<i>Strumeta tryoni</i> ..	Heavily infested.
RUBIACEAE			
<i>Nauclea orientalis</i> L. ..	Leichhardt tree ..	<i>Strumeta humeralis</i>	
RUTACEAE			
<i>Acronychia pubescens</i> (F. M. Bail.) C. T. White		<i>Strumeta halfordiae</i>	
<i>Casimiroa edulis</i> Llave & Lex.	White sapote ..	<i>Strumeta humeralis</i> <i>Strumeta tryoni</i>	
<i>Citrus reticulata</i> Blanco	Mandarin	<i>Strumeta musae</i> ..	Ovipositing only.
<i>Citrus sinensis</i> Osbeck	Orange	<i>Strumeta melas</i> ..	Occasional specimens.
<i>Halfordia scleroxyla</i> F. Muell.	Northern saffron heart	<i>Strumeta kraussi</i> ..	
SMILACACEAE			
<i>Smilax australis</i> R. Br.	A Wait-a-while ..	<i>Strumeta halfordiae</i>	One specimen only.
THYMELAEACEAE			
<i>Phaleria blumei</i> (Dcne.) Benth. var. <i>latifolia</i> Benth.		<i>Strumeta phaleriae</i> ..	
<i>Phaleria chermisideana</i> (F. M. Bail.) C. T. White		<i>Strumeta halfordiae</i>	
VITACEAE			
<i>Cissus</i> sp.	A Native grape ..	<i>Strumeta tryoni</i> ..	



Fig 1.

Alyxia spicata R.Br. (a Chain-fruit), the Host of *Strumeta alyxiae* May.



Fig. 2.

Terminalia muelleri Benth., a Wild Host of *Strumeta tryoni* (Frogg.)

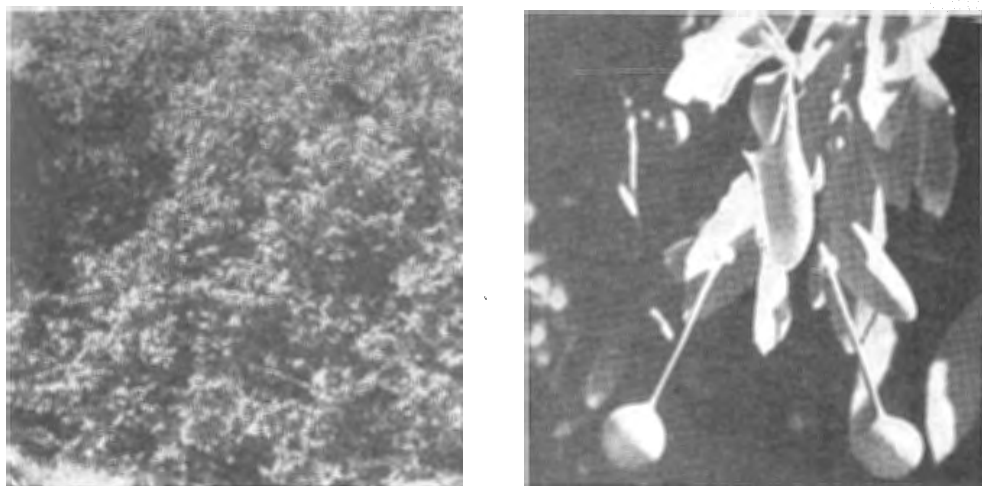


Fig. 3.

Capparis lucida (DC.) R.Br. ex Benth., the Only Known Host of *Diplodacus signatifer* (Tryon).

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