

BROOKS ISLAND, CONTRA COSTA CO. CALIFORNIA
LIST OF OBSERVED LEPIDOPTERA

compiled by J. A. Powell

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This compilation summarizes records of about 220 species of Lepidoptera (198-202 moths, 20 butterflies), members of 34 families, from Brooks Island, Contra Costa Co., CA. Observations were made by Y.-F. Hsu, M. McIntosh, and J. Powell during 19 daytime visits of 1.5 to 6.0 hours, in February, March, April, May, June, September, October, and November in 1993-97, including 13 nights light trapping in February-March and September-November. Larvae or larval mines were recorded for 66 species (31%), including 48% of the Microlepidoptera, adults only for the remainder.

About 167 of the species (80%) are native insects, using native plants as larval foods or are detritivores, and several of the remainder are native insects that depend upon host plants that certainly or probably are not native on the island (e.g., *Cupressus*, *Ceanothus*). The diversity and abundance of native plants in the flora (ca 92 species), and the proportion new to the Lepidoptera inventory among species observed during 1996 (ca. 24% in March; 10% in September) suggest that additional moth species are to be expected, particularly in winter-early spring and in May-July when we have not made nocturnal samples. Thorough inventory would involve numerous visits in all seasons and would depend in part on more comprehensive nocturnal sampling by ultraviolet lights. Recognition of vagrant individuals from the "mainland" poses a problem to an inventory of flying insects found on Brooks Island, particularly those recorded only by light trap.

Abbreviations: e= exotic, n= native; r= resident, v= vagrant; la= larva or mi = larval mines, II-XI, months, February to November; ! = unique record on Brooks I. Larval collections at Brooks Island designated by year-month-collection numbers (e.g., 93D7 = 7th collection in April, 1993); * = association with exotic or weedy larval host plant.

	<u>1st record</u>	<u>last record</u>	
Moths:			
NEPTICULIDAE			
Stigmella heteromelis Newt. & Wilkinson 96C14.1 on <i>Heteromeles arbutifolia</i>	mi III.96!		n, r
Stigmella sp. 93D1.1 on <i>Ceanothus arboreus</i>	mi IV.93		n, r*
Stigmella sp. 94J9, 95K28, L9 on <i>Salix laevigata</i> & <i>S. lasiolepis</i> (serpentine mine)	mi IX.94	XI.95	n, r
Stigmella sp. 95K28.1 on <i>S. lasiolepis</i> (linear mine)	mi X.95		n, r
HELIOZELIDAE			
<i>Coptodisca saliciella</i> (Clemens) 94J9, 95F19, k28, L9 on <i>Salix lasiolepis</i>	mi IX.94	XI.95	n, r

TISCHERIIDAE			
Tischeria ceanothi Walsingham 93D4 on Ceanothus arboreus	mi IV.93	IX.96	n, r*
Tischeria splendida Braun	III.94!		
TINEIDAE			
Monopis crocicapitella Clemens	IX.94	III.96	n, r
Tinea niveocapitella Chambers	IX.94	IX.96	r
Tinea occidentella Chambers	IX.94	IX.96	r
Tinea pallescentella Stainton	IX.95!		r
unplaced tineine	X.95 !		
GRACILLARIIDAE			
Caloptilia diversilobiella Opler? poison oak leaf roller	IX.94	X.95	n, r
Cremastobombycia sp. 94K3 on Gnaphalium luteo-album	mi X.94 !		n, r*
Phyllonorycter sp. 94J9, 95K28 on Salix laevigata	mi IX.94	X.95	n, r
Phyllonorycter sp.	mi IX.94 !		n, r
BUCCULATRICIDAE			
Bucculatrix transversata Braun? 95F15 on Ambrosia psilostachya	VI.95 !		n, r
Bucculatrix variabilis Braun 93D2, 96C25 on Baccharis pilularis	IV.93	III.96	n, r
DOUGLASIIDAE			
Tinagma californica Gaedicke assoc. Phacelia californica	IV.93	III.96	n, r
OECOPHORIDAE			
Endrosis sarcitrella (L.) white-shouldered house moth	IX.94		e, r
Esperia sulphurella (F.)	IV.93 !		e, r
COSMOPTERIGIDAE			
Cosmopterix molybdina Hodges	IV.94 !		n, r
Walshia miscecolorella (Chambers) false indigo moth, sweetclover root borer	IX.94	X.95	n, r
MOMPHIDAE			
Mompha achlyogroma Koster & Harrison	IX.94 !		n, r
COLEOPHORIDAE			

Batrachedra striolata Zeller	XI.95		n, r
95L10 in Pontania galls on Salix			
Coleophora n. sp. near annulicola Braun	IV.93	II.97	n, r
93D7, 97B33 on Aster chilense			
Coleophora baccharella Landry ms	IV.93	IX.96	n, r
93D2, 94C95, 96C26 on Baccharis			
Coleophora tildeni Landry ms	IV.93	IX.96	n, r
93D2, 96C26 on Baccharis pilularis			
Coleophora sp.	IX.96 !		
Coleophora sp.	IX.94		n, r
94K2 in fl. heads Grindelia humilis			
Coleophora (whitish)	IX.94 !		
Coleophora sp.	III.96 !		n, r
96C26 on Sanicula			
BLASTOBASIDAE			
Hypatopa sp. near iceryaeella (Riley)	IV.93	IX.96	n, r*
93D1.2 in Ceanothus inflorescence			
94C100 in old seed pods Lupinus			
Hypatopa (gray, not iceryaeella-like)	X.95	IX.96	
Holcocera sp.	III.94		r
94C92 in cones Cupressus			
unplaced blastobasid (white FW)	IX.94 !		
GELECHIIDAE			
Aristotelia argentifera Busck	IV.93	IX.96	n, r
93D3, 94C94 on Baccharis pilularis			
Aroga trachycosma (Meyrick)	IV.94	VI.95	n, r
94D75 on Frankenia grandifolia			
Bryotropha hodgei Rutten	IX.94		n, r
Chionodes dammersi (Keifer)	II.28.97		n, r
97B30 on Eriogonum latifolium			
Chionodes nanodella (Busck)	IX.94	IX.96	n, r
Chionodes sp.	XI.95 !		
Gnorimoschema baccharisella Busck	IX.94	IX.96	n, r
94K1 stem gall on Baccharis pilularis			
coyote brush gall moth			
Gnorimoschema saphirinella (Chambers)	VI.95	X.95	n, r
Gnorimoschema new sp.	X.95 !		
Leucogoniella californica (Keifer)	IX.94 !		n, r
Recurvaria bacchariella Keifer	IV.93	III.94	n, r
93D3, 94C94 on Baccharis pilularis			
Recurvaria ceanothiella Braun	IV.93	IX.96	n, r*
93D1, 96C16 on Ceanothus arboreus			
Scrobipalpula psilella complex	IX.94	III.96	n, r

Symmetrischema striatellum (Murtfeldt)	IV.93	III.96	n, r
93D8, 94C93, 95E27, F16, K29. L8, 96C32			
tip tier on Solanum			
Telphusa sedulitella (Busck)	VI.94 !		n, r?
oak groundling			
Tuta sp.?	IV.93 !		
93D9 on Atriplex			
unplaced gelechiid	X.95 !		
EPERMENIIDAE			
Epermenia cicutaella Kearfott	XI.95 !		n, r?
SCHRECKENSTEINIIDAE			
Schreckensteinia festaliella (Hübner)	IV.94	II.97	n, r
assoc. Rubus vitifolius			
blackberry leaf skeletonizer			
PLUTELLIDAE			
Plutella xylostella (L.)	IX.94	X.95	e, r
diamondback moth			
LYONETIIDAE			
Bedellia somnulentella (Zeller)	IX.96	II.97	e, r
97B31 on Convolvulus			
morning glory leaf miner			
ARGYRESTHIIDAE			
Argyresthia cupressella Walsingham	III.94 !		n, r
Argyresthia pilatella Braun	III.96 !		n, r
Argyresthia trifasciae Braun	IV.93		n, r*
93D15.1 on Cupressus macrocarpa			
SESIIDAE			
Penstemonia clarkei Engelhardt	VI.95		
Synanthedon bibionipennis (Boisduval)	VI.95 !		
strawberry crown moth			
CHOREUTIDAE			
Tebenna gnaphaliella (Kearfott)	IV.93	X.95	n, r*
93D10, 94D71, D79 on Gnaphalium			
TORTRICIDAE			
Olethreutinae:			
Bactra verutana Zeller	X.95	IX.96	n, r
Endothenia conditana (Walsingham)	IV.93	III.94	n, r

Endothenia hebesana (Walker)	IX.94	V.95	n, r
verbena bud moth			
Epiblema strenuana (Walker) (beach race)	IV.93	VI.95	n, r
95F15 on <i>Ambrosia psilostachya</i>			
ragweed borer			
Epinotia columbia (Kearfott)	II.97		n, r
97B28 on <i>Salix lasiolepis</i>			
Epinotia cupressi Heinrich	IV.93		n, r*
93D15 on <i>Cupressus macrocarpus</i>			
Epinotia infusca (Walsingham)	IV.93	II.97	n, r
93D12, 97B32 on <i>Lupinus arboreus</i>			
Epinotia kasloana (Kearfott)	IV.93	II.97	n, r
93D1.5, 96C16, 97B27 on <i>Ceanothus</i>			
Epinotia seorsa Heinrich	III.94 !		n, r
94C101 on <i>Salix laevigata</i>			
Eucosma suadana Heinrich	VI.95	IX.96	n, r
Notocelia culminana (Walsingham)	IX.94		n, r
Phaneta misturana (Heinrich)	III.94	II.97	n, r
Cydia americana (Walsingham)	IV.93	IV.94	n, r
Cydia cupressana Kearfott	IV.93	IV.94	n, r
assoc. <i>Cupressus macrocarpus</i>			
cypress cone moth			
Grapholita caeruleana Walsingham	IV.93	II.97	n, r
assoc. <i>Lotus wrangelianus</i>			
Grapholita lunatana Walsingham	IV.94	II.97	n, r
assoc. <i>Lathyrus</i>			
Tortricinae:			
Acleris hastiana (L.)	III.94	IX.96	n, r
94C101, 94D60 on <i>Salix laevigata</i>			
Acleris keiferi Powell	IV.93	VI.95	n, r
93D13 on <i>Rosa californica</i> ,			
94D59 on <i>Rubus vitifolius</i>			
Acleris senescens Zeller	IV.93	III.96	n, r
93D5, 94C101, D60, 96C33, C15 on			
<i>Salix laevigata</i> and <i>S. lasiolepis</i>			
Acleris variegana (Schiffermuller)	IV.93	IX.96	e, r
93D13 on <i>Rosa californica</i>			
variegated button			
Croesia albicomana (Clemens)	IV.93	III.94	n, r
93D13, 94C99 on <i>Rosa californica</i>			
Anopina triangulana (Kearfott)	IX.94	IX.96	n, r
Cnephasia longana (Haworth)	IV.93	VI.95	e, r
93D4 on <i>Achillea millefolium</i>			
94D66 on <i>Centauria melitensis</i>			
94D70 on <i>Wyethia angustifolia</i>			

omnivorous leaf-tier			
Argyrotaenia franciscana (Walsingham) complex	IV.93	II.97	n, r
94C101 on Salix laevigata			
94D77 on Artemisia douglasiana			
94D78, 97B18 on Scrophularia californica			
94J6 on Grindelia humilis			
96C25 on Baccharis pilularis			
97B16 on Gnaphalium			
apple skinworm			
Clepsis peritana (Clemens)	X.95 !		n, r
garden tortrix			
Amorbia cuneana (Walsingham)	III.96	IX.96	n, r
96C14 on Heteromeles arbutifolia			
Platynota stultana (Walsingham)	IV.93	II.97	e, r
94J11 on Spergularia macrotheca			
94J6 on Grindelia humilis			
94J7 on Grindelia hirsutula			
97B24 on Atriplex patula			
omnivorous leaf roller			
Aethes sp. (near smeathmanniana?)	III.96 !		n
Henricus macrocarpanus (Kearfott)	III.94 !		n, r
94C92 in cone Cupressus macrocarpus			
Saphenista latipunctana (Walsingham)	IV.93	IX.96	n, r
assoc. Eriophyllum			
Saphenista nomonana (Kearfott)	IV.93	III.96	n, r*
93D1, 96C16 on Ceanothus arboreus			
Saphenista saxicolana (Walsingham)	III.94	IX.94	
94C94, J5 on Baccharis pilularis			
PTEROPHORIDAE			
Amblyptilia pica (Walsingham)	IV.94 !		n, r
94D82 on Scrophularia californica			
Oidaematophorus confusus Braun	IV.94	III.96	n, r
94D65, 96C28 on Baccharis pilularis			
Oidaematophorus grandis (Fish)	IX.94	IX.96	n, r
Oidaematophorus meyricki Barnes & Lindsey	IX.94 !		
Oidaematophorus sp.	IX.95		n
Platyptilia carduidactyla (Riley)	IV.93		n, r
93D6 in flower Cirsium			
artichoke plume moth			
Platyptilia pallidactyla (Haworth)	IV.93	IV.94	e, r
Platyptilia williamsi Grinnell	IV.94	II.97	n, r
94D71, D79, 95F17 inflorescence Gnaphalium			
95F15 inflorescence Ambrosia psilostachya			

97B16 inflorescence <i>Anaphalis</i> ?			
97B24 inflorescence <i>Atriplex patula</i>			
<i>Platyptilia not williamsi</i> ?	X.95		n
CRAMBIDAE			
Pyraustinae			
<i>Achyra occidentalis</i> (Packard)	IX.97 !		
garden webworm			
<i>Agriphila anceps</i> (Grote)	X.94	X.95	n, r
<i>Agriphila undata</i> (Grote)	IX.94	IX.96	n, r
<i>Crambus occidentalis</i> Grote	X.95		n, r
<i>Diastictis fracturalis</i> (Zeller)	IX.94 !		n
<i>Dicymolomia metalliferalis</i> (Packard)	IX.94	IX.96	n, r
<i>Eudonia rectilinea</i> (Zeller)	V.95	VI.95	n, r
<i>Hellula rogatalis</i> (Hulst)	IX.94	IX.94	e, r
cabbage webworm			
<i>Lineodes integra</i> (Zeller)	X.95	III.96	n, r
96C33 in <i>Solanum ?furcatum</i>			
<i>Microtheoris ophionalis</i> (Walker)	IX.94		n, r
<i>Nomophila nearctica</i> Munroe	X.95 !		n
North American grass webworm			
<i>Pyrausta subsequalis</i> (Guenee)	IX.94	IX.96	n, r
weedfield sable			
<i>Tehama bonifatella</i> (Hulst)	VI.95 !		n
<i>Udea profundalis</i> (Packard)	IV.93	X.96	n, r*
false greenhouse leaf-tier			
<i>Uresiphita reversalis</i> (Guenee)	IX.94	IX.96	e, r
96J4 on <i>Lupinus arboreus</i>			
genista caterpillar			
PYRALIDAE			
<i>Ephesiodes gilvescentella</i> Ragonot	IX.94	II.97	n, r
<i>Homoeosoma electellum</i> (Hulst)	IX.96		n, r
sunflower moth			
<i>Lipographis fenestrella</i> (Packard)	IX.94	IX.96	n, r
<i>Patagonia peregrinum</i> (Heinrich)	IX.94	IX.96	n, r
<i>Phycitodes mucidellum</i> (Ragonot)	IV.94	X.95	n, r
94K2 inflorescence <i>Grindelia stricta</i>			
<i>Vitula edmansii</i> (Packard)	IX.94	IX.96	n, r
dried fruit moth, honeycomb moth			
GEOMETRIDAE			
<i>Dichorda illustraria</i> (Hulst)	IX.94	IX.96	n, r
<i>Drepanulatrix monicaria</i> (Guenee)	IX.94 !		n
<i>Elpiste marcescens</i> (Guenee)	IV.94	IX.96	n, r

94D62 on <i>Baccharis pilularis</i>			
<i>Epirrhoe plebeculata</i> (Guenee)	II.97		n, r
<i>Eupithecia acutipennis</i> (Hulst)	XI.95	III.96	n, r
96C17 on <i>Artemisia californica</i>			
<i>Eupithecia annulata</i> (Hulst)	II.97		n
<i>Eupithecia miserulata zela</i> Swett & Cassino	III.94	X.95	n, r
94C96 on <i>Achillea millefolium</i>			
<i>Eupithecia misturata</i> (Hulst)	IX.94	IX.96	n, r
<i>Eupithecia rotundopuncta</i> Packard	III.96	III.96	n, r
<i>Eupithecia subapicata</i> Guenee	II.97		n, r
<i>Neocalcis californiata</i> (Packard)	X.95 !		n
<i>Neoterpes edwardsata</i> (Packard)	X.95	II.97	n, r
97B23 on <i>Eschscholzia californica</i>			
<i>Perizoma custodiata</i> (Guenee)	IV.93	IX.96	n, r
<i>Pero macdunnoughi</i> Rindge	IX.94	II.97	n, r
McDunnough's leafwing			
<i>Prochoerodes forficaria</i> (Guenee)	IX.96 !		n
<i>Synaxis truxaliata</i> (Guenee)	X.95	IX.96	n, r
<i>Sabulodes aegrotata</i> (Guenee)	IX.94	IX.96	n, r
omnivorous looper			
<i>Semiothis californiata</i> (Packard)	X.95 !		n
<i>Xanthorrhoe defensaria</i> (Guenee)	V.95	II.97	n, r
unplaced geometrid la	III.94 !		n
94C96 on <i>Achillea</i>			
unplaced geometrid la	III.94 !		n
94C64 on <i>Baccharis</i>			
SPHINGIDAE			
<i>Smerinthus cerisyi</i> Kirby	IV.94	IX.94	n, r
94C61, J8 on <i>Salix lasiolepis</i>			
eyed sphinx			
ARCTIIDAE			
<i>Apantesis proxima</i> (Guerin-Meneville)	IX.94	IX.96	n, r
Mexican tiger moth			
NOCTUIDAE			
<i>Abagrotis</i> sp.		IX.94	n,
<i>Adelphagrotis stellaris</i> (Grote)	IX.94	IX.96	n, r
<i>Agrotis ipsilon</i> (Hufnagel)	IX.94	IX.96	n, r
greasy cutworm, black cutworm			
<i>Apamea cincta</i> (Grote)	III.96		n,
<i>Autographa californica</i> (Speyer)	V.95	II.97	n, r
alfalfa looper			
<i>Benjaminiola colorada</i> (Smith)	IX.94		n, r

Caenurgina erechtea (Cramer)	IV.93	IX.96	n, r
forage looper			
C. togataria (Walker)	IX.94	IX.96	n, r
Cerastis robertsoni Crabo	III.96	II.97	n, r
Cryphia oaklandiae (Barnes & McDunnough)	IX.94 !		n
Dargida procincta (Grote)	IX.94		n
olive green cutworm			
Discestra chartaria (Grote)	IX.94	III.96	n, r
Egira curialis (Grote)	III.96 !		n
Egira perlubens (Grote)	III.96		n
Egira rubrica (Harvey)	III.96		n
Euxoa sp. (messoria?)	IX.94	IX.94	n, r
Euxoa obeliscoides (Guenee)	IX.94	IX.96	n, r
Euxoa olivia (Morrison)	IX.96 !		n
Euxoa punctigera (Walker)	IX.94 !		n
Euxoa septentrionalis (Walker)	IX.94	IX.96	n, r
Euxoa wilsoni (Grote)	X.95	IX.96	n, r
Feltia jaculifera (Guenee)	IX.94 !		e, v
dingy cutworm			
Heliothis phloxiphagus Grote & Robinson	IV.94	IX.96	n
Heliothis zea Boddie	IX.94	IX.96	n, r
corn earworm, bollworm, tomato fruitworm			
Hemieuxoa rudens (Harvey)	X.95	II.97	n, r
Homorthodes communis (Dyar)	IX.94	IX.96	n, r
Homorthodes fractura (Smith)	IX.96		n
Lacinipolia cinnabarina (Grote)	IX.94	IX.96	n
Lacinipolia patalis (Grote)	III.96 !		n, r
Lacinipolia pensilis (Grote)	IX.94	IX.96	n, r
Lacinipolia quadrilineata (Grote)	IX.94	IX.96	n, r
Lacinipolia strigicollis Wallengren	IX.94	IX.96	n, r
Lasionycta ochracea Riley	X.95		n, r
Leucania oregona Smith	IX.94	IX.96	n, r
Orthosia hibisci (Guenee)	III.96	II.97	n, r
speckled green fruitworm			
Orthosia praeses (Grote)	X.95	II.97	n, r
Papaipema sauzalita (Grote)	III.94 la	II.97	n,cr
94C98, D78 stems Scrophularia californica			
97B24 stems Atriplex patula?			
Parabagrotis formalis (Grote)	IX.94	IX.96	n, r
Peridroma saucia (Hübner)	X.95	II.97	n, r
variegated cutworm			
Platyperigea extima (Walker)	IX.94	X.95	n, r
Protorthodes alkfeni (Grote)	IX.94	IX.96	n, r
Protorthodes rufula (Grote)	IX.94	IX.96	n, r
Pseudaletia unipuncta (Haworth)	IX.94	II.97	e, r

armyworm			
Pseudobryomima muscosa (Hampson)	IX.94		n, r
Pseudorthosia variabilis Grote	IX.94 !		n
Spodoptera exigua (Hübner)	IX.94	IX.96	n, r
beet armyworm			
Trichoclea edwardsii Smith	IX.94	III.96	n, r
Tricholita fistula Harvey	IX.94	III.96	n, r
Trichoplusia ni (Hübner)	II.97 !		e, v
cabbage looper			
Xestia adela Franclemont	XI.95	IX.96	n
Zosteropoda hirtipes Grote	IX.94	IX.96	n, r
Butterflies:			
HESPERIIDAE			
Pyrgus communis (Grote)	IV.93	X.95	n, r*
western checkered skipper			
Hesperia columbia (Scudder)	IV.94 !		n, v?
Columbian skipper			
Paratrytone melane (Edwards)	IX.96 !		n, r?
umber skipper			
Polites sabuleti (Boisduval)	IV.94	IX.96	n, r
sandhill skipper			
PAPILIONIDAE			
Battus philenor (L.)	IV.93	II.97	n, r
larvae seen on Aristolochia			
pipevine swallowtail			
Papilion zelicaon Lucas	IV.93	II.97	n, r*
anise swallowtail			
PIERIDAE			
Anthocharis sara Lucas	III.94	IV.94	n, r?
sara orange tip			
Colias eurytheme Boisduval	X.94	IX.96	n, rv
probably not a continuous resident			
orange sulphur, alfalfa butterfly			
Euchloe ausonides (Lucas)	IV.93	III.96	n, r*
95E23 on Brassica			
large marble			
Pieris rapae (L.)	III.94	II.97	n, r*
cabbage butterfly			
LYCAENIDAE			
Brephidium exile (Boisduval)	X.95	XI.95	n, rv*
assoc. Atriplex hastata;			

probably not a continuous resident			
pigmy blue			
Celastrina ladon (Cramer)	III.94?	VI.95	n, r
spring azure			
Plebeius acmon (Westwood & Hewitson)	IX.96 !		n, r?
acmon blue			
NYMPHALIDAE			
Junonia coenia (Hübner)	IV.94	IX.96	n, r*
buckeye butterfly			
Phyciodes campestris (Behr)	IV.93	IX.96	n, r
field crescent			
Vanessa annabella (Field)	III.94	II.97	n, r
94C1, D68 on Sidalcea malvaeflora			
west coast lady			
Vanessa cardui (L.)	V.95	III.96	n, v*
painted lady			
Vanessa virginiensis	IV.94	II.97	n, r
94D69, D79, 95F17 on Gnaphalium			
97B17 on Anaphalis?			
American lady, Virginia lady			
Danaus plexippus (L.)	X.95	IX.96	n, v
monarch butterfly			
SATYRIDAE			
Coenonympha californica Westwood	IV.93	IX.96	n, r
California ringlet			