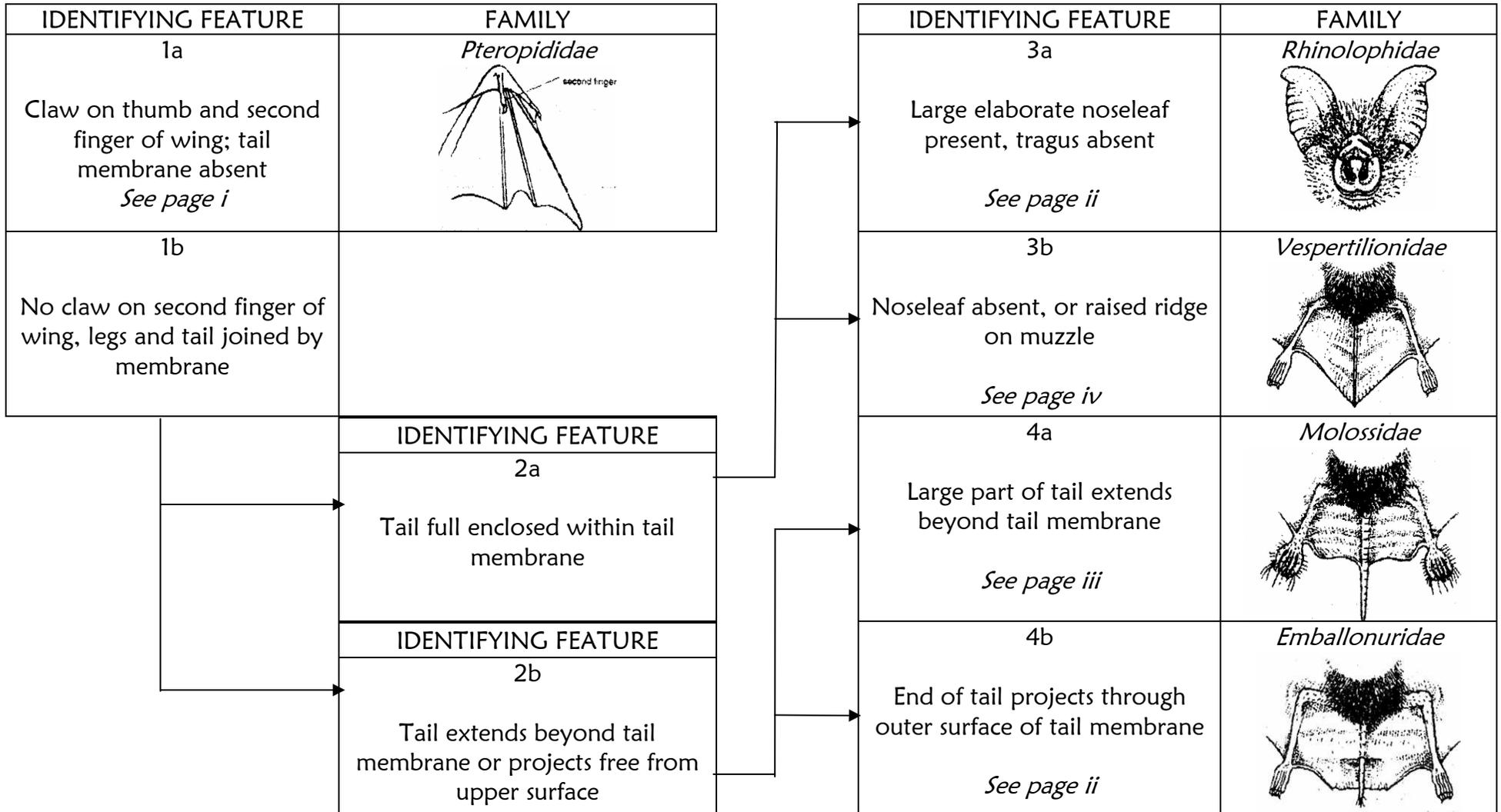


KEY TO
IDENTIFYING BATS
IN SOUTH EAST QUEENSLAND



Field Guide by Les Hall
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BAT FAMILIES



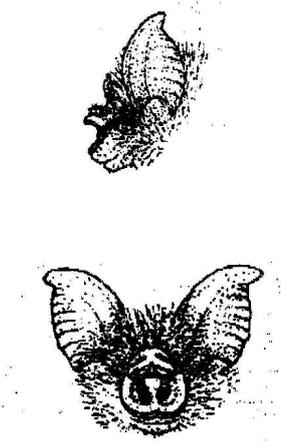


BAT SPECIES

In the *Pteropodidae* family there are three species of flying fox, one tube-nosed fruit bat and one blossom bat found in southeast Queensland.

FAMILY <i>Pteropodidae</i>	IDENTIFYING FEATURE	SPECIES	
Adult Forearm less than 135mm	Reddish/brown fur		<i>Pteropus scapulatus</i> Little Red Flying-fox
Adult Forearm length over 135mm	<ul style="list-style-type: none"> Upper surface of lower legs thickly furred, rusty yellow fur completely encircling neck, head grayish 		<i>Pteropus poliocephalus</i> Grey-Headed Flying-fox
	<ul style="list-style-type: none"> Upper surface of legs naked, fur jet black with frosted tips, can have dark brown fur around eyes and on back of neck 		<i>Pteropus alecto</i> Black Flying-fox
Adult Forearm 60-70mm	Has distinctive extended tubular nostrils, yellow spots on bare skin on the ears, nose and wings	<i>Nyctimene robinsoni</i> Eastern tube nosed bat	
Adult Forearm 38-45mm	Miniature flying-fox with light brown fur, long tongue, prominent eyes	<i>Synconycteris australis</i> Queensland blossom bat	



FAMILY <i>Rhinolophidae</i>	IDENTIFYING FEATURE	SPECIES
Forearm 45-50 mm	<p data-bbox="579 266 978 528">Large pointed ears with no tragus. Complicated flap of skin on the nose, the outer pan of which resembles a horseshoe. Has very small eyes and an enclosed tail shorter than the hind leg</p> 	<p data-bbox="1054 266 1422 338"><i>Rhinolophus megaphyllus</i> Eastern horseshoe bat</p> 

There is only one horseshoe bat found in S.E. Queensland.

FAMILY <i>Emballonuridae</i>	IDENTIFYING FEATURE	SPECIES
Forearm 72-80mm	<p data-bbox="579 1355 1015 1579">Has jet black fur on the back and cream to pure white fur on the belly. There is very little fur on the face and males have a throat pouch, bare skin is black.</p> 	<p data-bbox="1075 1355 1410 1426"><i>Saccolaimus flaviventris</i> Yellow-bellied bat</p> 

There is only one sheath-tailed bat found in S.E. Queensland.



There are at least four species of Molossids in Southeast Queensland. This number (and names) could change as there are still taxonomic problems with the smaller *Mormopterus*.

FAMILY <i>Molossidae</i>	IDENTIFYING FEATURE	SPECIES
Forearm 57-63mm	<p>Large chocolate brown bat with strip of white fur where belly fur meets wing membrane. Pulls its large ears down over its eyes, throat pouch present</p> 	<p><i>Nyctinomus (Tadarida) australis</i> White striped freetail bat</p> 
<p>Forearm less than</p> <ul style="list-style-type: none"> - 35mm - 36mm 	<p>Sydney to North Queensland Inland locations</p> 	<p><i>Mormopterus (loriae & sp.)</i> <i>Mormopterus planiceps</i></p> 
Forearm over 35mm	<p>Short grey fur, stocky build, tail 21-32 mm, 14-16 gms</p> <p>Long Brownish fur, ears upright, long tail 35-45mm, pale belly, edges of wings whitish, inland bat weighing 8-10 gms</p>	<p><i>Mormopterus beccarii</i> Beccari's freetail bat</p>  <p><i>Mormopterus norfolkensis</i> East-coast freetail bat</p> 

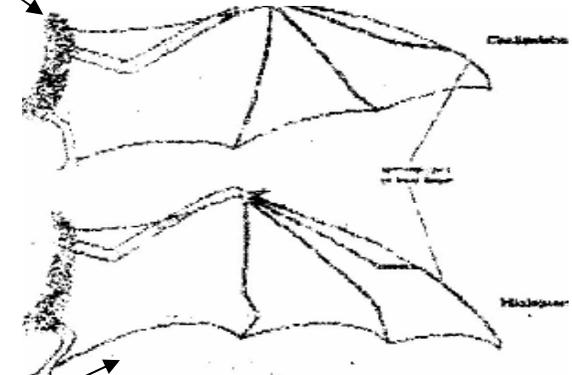


There are approximately 21 species in this group, found in Southeast Queensland. Some genera (e.g. *Vespadelus* and *Scotorepens*) are “little brown bats” and are difficult to identify.

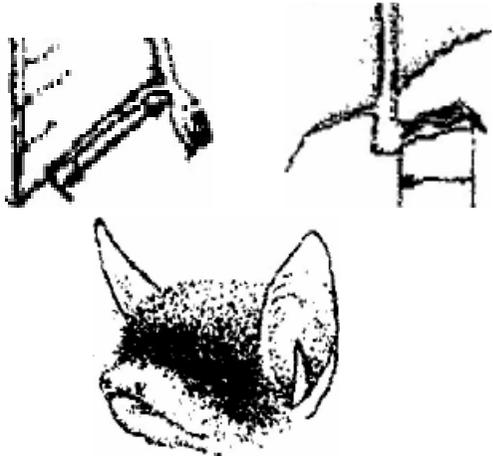
FAMILY <i>Vespertilionidae</i>	IDENTIFYING FEATURE	SPECIES
Forearm over 45mm	- Four upper incisors, ears overlap when pressed together over the head, penis hairy, forearm 48-54mm	<i>Falsistrellus tasmaniensis</i> Eastern falsistrelle 
	- Two upper incisors, no gap between incisor and canine tooth, ears barely reach each other when pressed together over head, penis almost hairless, forearm 50-56mm	<i>Scoteanax rueppellii</i> Greater broadnosed bat 



FAMILY <i>Vespertilionidae</i>	IDENTIFYING FEATURE	SPECIES
Forearm less than 45mm	Nasal flaps and a rudimentary noseleaf above nostrils, - Ears long with fold marks and can be folded down - tragus small	See Genus <i>Nyctophilus</i> Page viii 
	No noseleaf present, with: - fleshy lobe which attaches to ear - ears erect - tragus prominent	See Genus <i>Chalinolobus</i> page vii 
	- No fleshy lobe on lower lip - tragus long and pointed - dark brown olive fur with golden tips and dark grey base, hair on forearm and membranes - forearm 35-39mm	<i>Kerivoula papuensis</i> Golden-tipped bat 
	- no fleshy lobe on lower lip - tragus short and rounded - ears rounded - Terminal joint of 3 rd finger approx. four times length of 2 nd last joint	See Genus <i>Miniopterus</i> page vii 





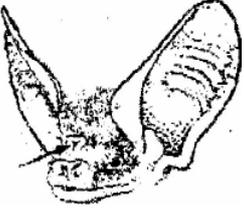
FAMILY <i>Vespertilionidae</i>	IDENTIFYING FEATURE	SPECIES	
	<ul style="list-style-type: none"> - ears funnel or mouse-like - Terminal joint of 3rd finger approx same length as 2nd last joint - Calcaneum extending more than half-way between the heel (toes) and tail long toes 10-14mm, f/a 38-41mm 	<p><i>Myotis moluocarum</i> Large-footed myotis</p> 	
	<ul style="list-style-type: none"> - Calcaneum not reaching half way along edge of uropatagium, feet less than 10mm • Two upper incisors, muzzle usually broad and hairless • Four upper incisors, the inner largest incisor has distinct bifurcated tip, calcaneum prominent and lobed 	<p>See Genus <i>Scotorepens</i> Page viii</p> <p>See Genus <i>Vespadelus</i> Page ix</p>	



GENUS <i>Chalinolobus</i>	IDENTIFYING FEATURE	SPECIES
Forearm 38-42mm	<ul style="list-style-type: none"> - Fur glossy black except for a white 'V' strip where belly fur meets wing and tail membranes - Ear over 15mm long 	<p><i>Chalinolobus dwyeri</i> Large-eared pied bat</p> 
Forearm 31-36mm	<ul style="list-style-type: none"> - Ear less than 12mm long 	<p><i>Chalinolobus picatus</i> Little pied bat</p>
Forearm 40-48mm	<ul style="list-style-type: none"> - Fur dark brown, grading to lighter brown towards tail, chocolate or frosted dark grey, no white belly 	<p><i>Chalinolobus gouldi</i> Gould's wattled bat</p> 
Forearm 32-37mm	<p>Fur dark grey with white frosting</p> 	<p><i>C. nigrogriseus</i> Hoary wattled bat</p> 
Forearm 35-42mm	<ul style="list-style-type: none"> - Fur chocolate brown often with rufous areas 	<p><i>C. Morio</i> Chocolate wattled bat</p> 



GENUS <i>Miniopterus</i>	IDENTIFYING FEATURE	SPECIES
Forearm 43-51mm		<p><i>Miniopterus schreibersii oceanensis</i> Large bentwing bat</p> 
Forearm 37-41mm		<p><i>Miniopterus australis</i> Little bentwing bat</p> 

GENUS <i>Nyctophilus</i>	IDENTIFYING FEATURE	SPECIES
Forearm 33-39mm	<ul style="list-style-type: none"> - Posterior noseleaf swelling well-developed forming a distinct Y shape groove in centre - Pale greyish black, whitish belly fur 	<p><i>Nyctophilus geoffroyi</i> Lesser longeared bat</p> 
<p>Forearm 36-48mm</p> 	<ul style="list-style-type: none"> - Posterior noseleaf swelling only a bump joined to nasal flaps by ridge - Brown back, grayish belly, ears over 25mm long 	<p><i>Nyctophilus gouldi</i> Gould's longeared bat</p> 
Forearm 38-44mm	<ul style="list-style-type: none"> - Posterior bump not joined to nasal flaps, fur dark brown to tan, ears less than 26mm 	<p><i>Nyctophilus bifax</i> Northern longeared bat</p> 



GENUS <i>Pipistrellus</i>	There are no records for the genus <i>Pipistrellus</i> in Southeast Queensland.
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GENUS <i>Scotorepens</i>	IDENTIFYING FEATURE	SPECIES
Forearm 33-37	- Stocky dark brown bat weighing 7-15gm 	<i>Scotorepens orion</i> Eastern broadnosed bat 
Forearm 27-33mm	- Light brown to greyish fur weighing 4-10 gms	<i>Scotorepens greyii</i> * Little broadnosed bat  * Specimens identified as <i>S. greyii</i> in SE Qld may prove to be another species

GENUS <i>Vespadelus</i>	IDENTIFYING FEATURE	SPECIES
<p>These bats are very difficult to identify and a reliable field key is not yet available for both sexes.</p> <p>The different species are separated by skull characters, penile morphology, DNA and enzyme analysis. They also look similar to small <i>Scotorepens</i> having broad and bare noses. However <i>Vespadelus</i> has two upper incisors on each side, the large inner one being bifurcated, whereas <i>Scotorepens</i> has only a single unpronged incisor tooth.</p>		
Forearm 33.5-37mm	- Males have a short bent penis without a swollen tip. The dark brown fur is thick and long. There is a patch of black skin at the angle of the lower lip. Skin is dark brown. Found on border ranges -	<i>V. darlingtoni</i> Large forest bat



Forearm 29-32.9mm	<ul style="list-style-type: none">- Weigh 3.5-6.0gm- Females are larger and heavier than males. Fur is dark and males have a short angled penis. The skin is dark brown, the head is slightly domed. Very similar to <i>V. darlingtoni</i> but has a f/a less than 33mm	<p><i>V. pumilus</i> Eastern forest bat</p> 
Forearm 28-34mm	<ul style="list-style-type: none">- Males have long pendulous penis, the tip has a funnel shape and a lateral fold- The bare skin is light brown. Females are difficult to distinguish from <i>V. darlingtoni</i> but the f/a of female is smaller. Most male <i>V. regulus</i> have a forearm less than 33mm.- Fur is light brown with a dark base and there is a distinct notch on the outer ear edge	<p><i>V. regulus</i> Southern forest bat</p>
Forearm 24-32mm	<ul style="list-style-type: none">- Fur greyish brown with paler belly. Fur is darker at the base and the tragus is whitish. The bare skin is light brown. This species is the only <i>Vespadelus</i> with a bulbous rounded tip to the penis	<p><i>V. vulturinus</i> Little forest bat</p>
Forearm 33-37mm	<ul style="list-style-type: none">- Brown fur, often ginger tipped around face and head. Bare skin is dark grey. Penis is pendulous with enlarged head. Found caves/mines	<p><i>V. troughtoni</i> Eastern cave bat</p>  