Bats of the Geelong Region

Presented by Grant Baverstock

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18 SPECIES RECORDED IN THE REGION

2 SPECIES OF FLYING FOXES – *PTEROPODIDAE*

1 SPECIES OF SHEATH-TAIL BAT – *EMBALLONURIDAE*

3 SPECIES OF FREE-TAIL BAT – *MOLOSSIDAE*

12 SPECIES OF ENCLOSED TAIL BATS – *VESPERTILIONIDAE*

Mega Bats- Flying Foxes

- Large – up to 600g
- Large eyes
- Eat fruit, blossom, nectar

- Simple ears
- Forage by sight and smell
- Good vision and smell
- Don’t hibernate or go in to torpor

Grey-headed Flying-fox

Little Red Flying-fox

Photo's by GB Baker

Micro Bats

- Micro Bats
- Small – 4 to 20g
- Small eyes
- Eat insects
- Complex ears
- Hunt using echolocation
- Good vision and excellent hearing
- Can go in to torpor

Eastern Freetail Bat

White Striped Freetail Bat

Yellow Bellied Sheathtail Bat

Photos: Terry Reardon

Chocolate Wattled Bat

Photo: G.B. Baker

Gould's Wattled Bat

Photo: Terry Reardon

Eastern Falsistrelle Bat

Photo: Terry Reardon

Southern Bentwing Bat

Photo: Terry Reardon

Why are bats so unique

- Only mammal capable of true flight
- Their body is designed for flight
- Use echolocation to find prey (micro bats)
- Probably the most successful and abundant order of mammals

What do they eat?

- Mega bats or Fruit Bats eat fruit
- Micro bats eat mostly insects
- Usually, the larger the micro bat the larger the prey is.

Feeding

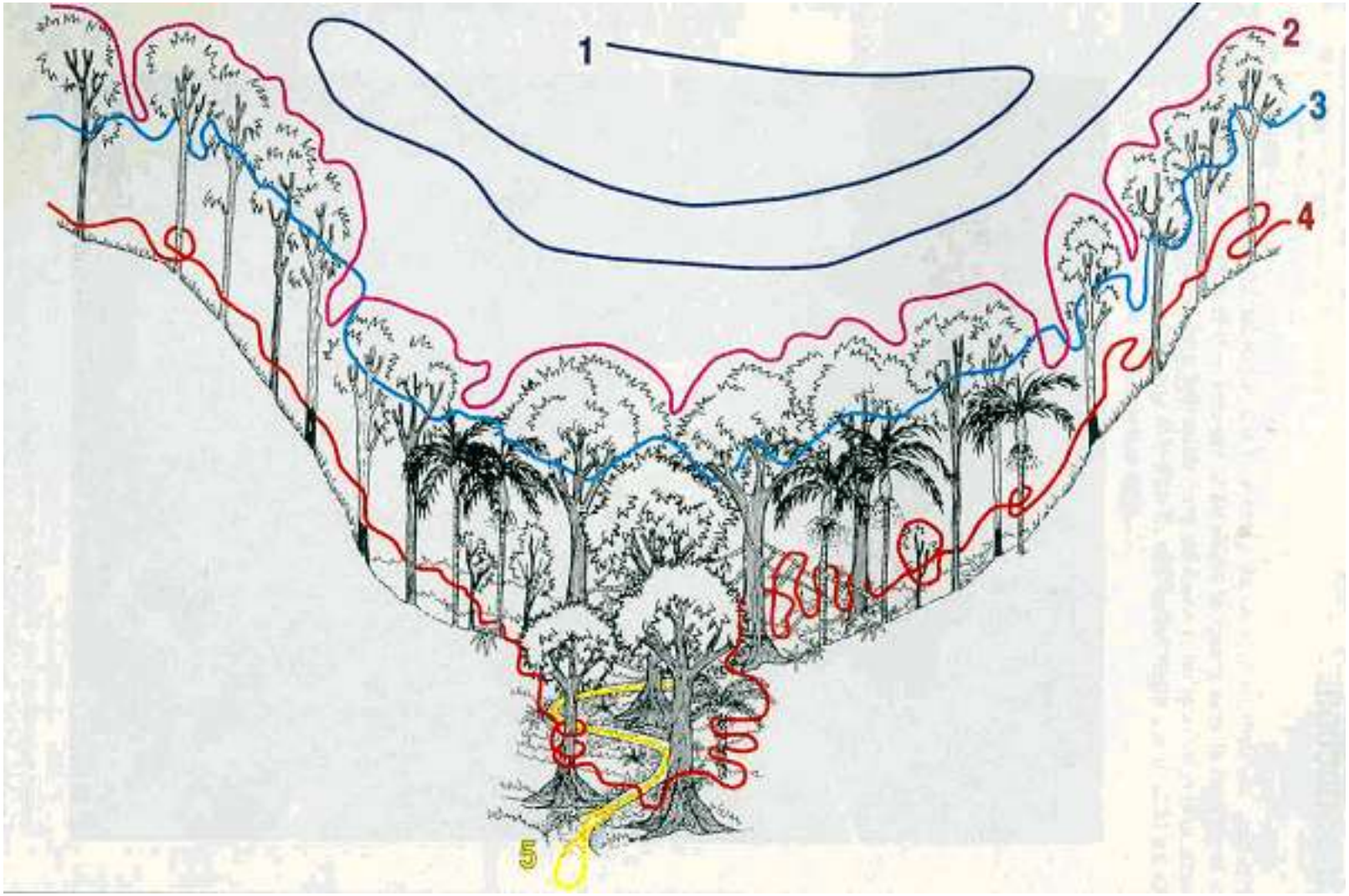
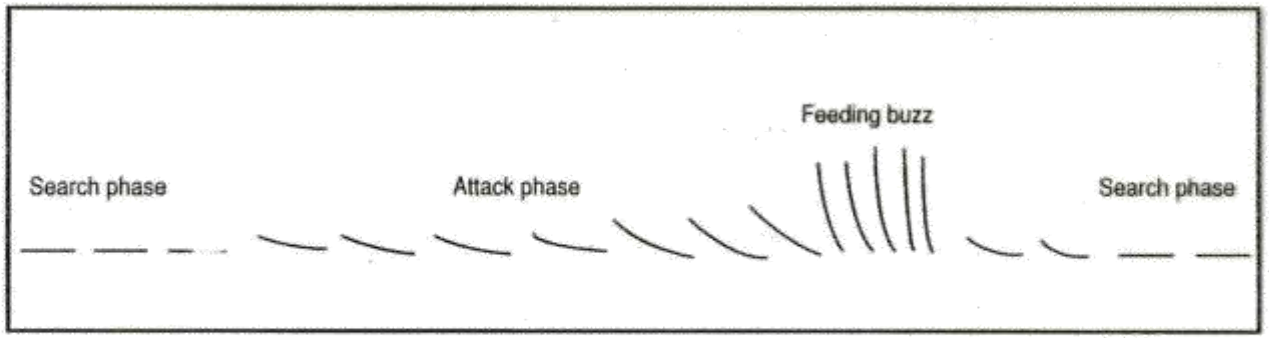


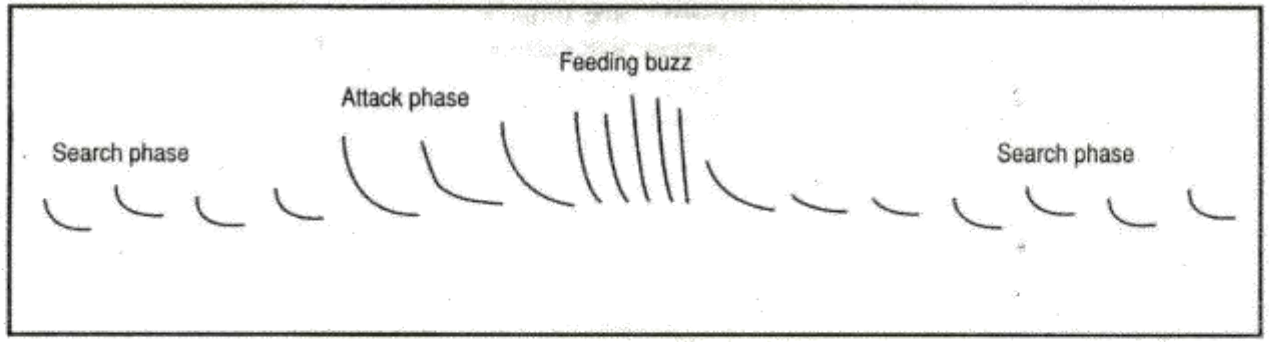
Photo: de Oliveira 1998

Echolocation

- Micro bats use ultrasonic calls to:
  - Navigate
  - Communicate with each other
  - Locate and catch prey, determine size, type, speed, etc.

- High frequency calls can locate items down to just millimeters in size.





Representation of different phases of echolocation calls (search phase calls are most commonly used for species identification)

[1] From Anabat System Practical Guide by Mritza C. de Oliveira

Where do bats live

Flying foxes live in large colonies or camps. These range in size from a few thousand up to hundred's of thousands.

Photo: Grant Baverstock

Caves / mines

Tree hollows / spouts / fissures

Photos: Grant Baverstock

Under bark

Buildings

Photos: Grant Baverstock

Gaps under bridges, culverts etc

Photos: Grant Baverstock

Thermoregulation

- Micro bats may go into torpor when air temperature is under 15^0C
- They drop body temperature close to that of the surrounds – near 0^0C!
- This reduces the rate of energy consumption

Threats to Bats

- **HABITAT LOSS (including clearing, fragmentation, and modification)**
- **ROOST DISTURBANCE**
- **FOREST HARVESTING**
- **COLLAPSE, CLOSURE OR REWORKING OF OLD MINES**
- **DISEASES**
- **GENERAL LACK OF KNOWLEDGE OF BATS AND WHAT THEY NEED**

Large Forest Bat

Southern Forest Bat

Little Forest Bat

Photos (top 2): G.B. Baker
Bottom: Grant Baverstock

Lesser Long-eared Bat

Photo: Terry Reardon

Southern Myotis Bat

Photo by G.B. Baker

Harp traps

Photo: Grant Baverstock

Photo: Sinéad Baverstock

How bat friendly is your garden?

Photo: Sinéad Baverstock

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de Oliveira, M.C., 1998, *Anabat System Practical Guide: Survey techniques, collection and characterisation of reference bat echolocation calls, common field problems and problem solving*, The State of Queensland, Department of Natural resources, Brisbane, pp. 2