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TASMANIAN FROGS AND HOW TO IDENTIFY THEM

A.M.D. Hewer

There are only ten known species of frogs in Tasmania. It should therefore be possible to identify a specimen from a general description only.

Some Tasmanian frogs are very restricted in their distribution so that knowing which frogs occur in a particular location is of considerable help.

Tasmanian frogs are easily identified by their mating calls. The different calls are so distinctive that there can be no confusion between species. Only the males are vocal and females will respond only to the call of a male of her own species. Call descriptions given below are those given by Littlejohn and Martin (1974).

Distribution and Mating Calls:

Litoria raniformis (Green & Gold Bell Frog)

Common throughout the eastern half of Tasmania and extending along the coastal areas to the north west. Call — a long modulated growl followed by a series of grunts in open water from October to December.

Litoria burrowsii (Tasmanian Tree Frog)

Endemic

Common from sea level to c.1000 m throughout the rainforest and button grass areas of Western Tasmania. Call — a long series of short "Qhanks" on vegetation near water from August to January.

Litoria ewingii (Brown Tree Frog)

Common throughout Tasmania to c.1500 m. Call — Harsh "whirr" repeated 5 to 15 times on land or on vegetation near water throughout the year.

Ranidella signifera (Brown Froglet)

Common throughout Tasmania. Appears to prefer still water for breeding. Call – rapid short grating “chirp” at the edge of still water throughout the year.

Ranidella tasmaniensis (Tasmanian Froglet)

Widely distributed in Tasmania but most common in alpine areas. At lower levels, e.g. Tasman Peninsula and Mt. William, it tends to occur in permanently wet areas where the water is running slowly. Appears to prefer running water for breeding. Call – Quavering “Bleat” in or at the edge of water from August to December.

Geocrinia laevis (Smooth Froglet)

Widely distributed in coastal areas in northern Tasmania, however, populations are known in the Derwent Valley and, in the north, at Ringarooma. Call – “Cra-a-a-ack, cra-a-a-ack, crack crack” on land from February to April.

Limnodynastes tasmaniensis (Spotted Marsh Frog)

Common throughout eastern and northern Tasmania. Call – loud sharp “Chick” as when two stones are struck together, in or at the edge of water from August to December.

Limnodynastes peronii (Peron’s Marsh Frog)

Occurs in two areas in northern Tasmania. One population exists in north western Tasmania, west of Rocky Cape. The other occurs in the north east from Bridport to Cape Portland. Call – soft explosive “Whuck” in or at the edge of water from October to December.

Limnodynastes dumerillii (Banjo Frog)

Sometimes called “Pobblebonk” this large frog occurs throughout much of Tasmania. Not usually found in rainforest areas. During winter, this species burrows deep into the earth and is often dug up by home gardeners. Call – Banjo-like “Plonk” in or at the edge of water from October to February.

Pseudophryne semi-marmorata (Southern Toadlet)

Widely distributed throughout the eastern half of Tasmania and along the north west coast. Call – Harsh grating “Cr-e-ek” on land from March to May.

In the accompanying key, descriptions are for fully grown individuals – juveniles will be similar in colour. The key is designed for the layman who may know nothing about frogs or their anatomy. It should enable him to identify any specimen occurring naturally in Tasmania. Several of the terms used in the key may need explanation.

Discs: All tree frogs in Tasmania have small round flat areas on the tips of their fingers and toes. These act like little suction pads and enable tree frogs to climb. Some species can climb on a smooth surface, such as glass.

Tympanum: The external part of the frog’s ear, usually located just behind the eye.

An excellent publication is “A Field Guide to Australian Frogs” by John Barker

and Gordon Grigg. It has an excellent series of colour plates.

Scientific names used in this article follow those used by Barker & Grigg.

KEY

- | | | | |
|----|-----|--|------------------------------------|
| 1. | (a) | Discs on tips of fingers and toes | 2 |
| | (b) | Fingers and toes are pointed and lack discs. | 3 |
| 2. | (a) | Length up to 90 mm; fingers unwebbed, toes partly webbed. Colour green marked with gold. Thighs blue, undersides white. | <i>Litoria raniformis</i> |
| | (b) | Length up to 75 mm; fingers unwebbed, toes partly webbed. Colour green or green with irregular blotches of brown or grey. Undersides creamy white. A characteristic green mark extends backwards from the eye. | <i>Litoria burrowsii</i> |
| | (c) | Length up to 40 mm; colour grey or brown with dark stripe down middle of back. | <i>Litoria ewingii</i> |
| 3. | (a) | Length approx. 27–30 mm. | 4 |
| | (b) | Length approx. 45–75 mm. | 6 |
| 4. | (a) | Tympanum present | 5 |
| | (b) | Tympanum absent | 7 |
| 5. | (a) | Granular skin. Colour brown or grey, usually with ornate markings. Undersides grey, marked or spotted with black. | <i>Ranidella signifera</i> |
| | (b) | Granular skin. Colour brown or grey with ornate markings. Undersides grey or black. Bright red patch near thighs. | <i>Ranidella tasmaniensis</i> |
| | (c) | Smooth skin. Colour slate grey with irregular red or yellow spots. Undersides white marbled black. Thighs pinkish. | <i>Geocrinia laevis</i> |
| 6. | (a) | Up to 45 mm. Colour yellowish brown to grey with dark oval spots. Yellowish dorsal stripe. Undersides whitish. | <i>Limnodynastes tasmaniensis</i> |
| | (b) | Up to 55 mm. Colour brownish or olive above with black spots merging into longitudinal stripes. Undersides spotted with brown. | <i>Limnodynastes peronii</i> |
| | (c) | Up to 75 mm. Colour brown irregularly marked or spotted. Under surface whitish or lightly spotted with brown or blue. | <i>Limnodynastes dumerilii</i> |
| 7. | | Warty skin. Length 27 mm. Colour brown to grey, spotted with black. Undersides boldly marked bluish white and black. Thighs bright orange-yellow. | <i>Pseudophryne semi-marmorata</i> |

REFERENCES

- | | |
|-------------------------|--|
| J. Barker & G. Grigg: | A Field Guide to Australian Frogs |
| H. Cogger: | Reptiles & Amphibians of Australia. 2nd Edn. |
| M.J. Tyler: | Frogs |
| W.D. Williams (Editor): | Biogeography and Ecology in Tasmania. |

ALTERATIONS TO BIRD NAMES – ENGLISH and SCIENTIFIC

	R.A.O.U. 1926	C.S.I.R.O. 1969
1.	Little Grebe (Dabchick) <i>Podiceps ruficollis</i>	Little Grebe <i>Podiceps novaehollandiae</i>
2.	White-breasted Cormorant <i>Phalacrocorax fuscescens</i>	Black-faced Cormorant
3.	Black Cormorant <i>Phalacrocorax carbo</i>	Black Cormorant
4.	White Egret <i>Egretta alba</i>	White Egret
5.	Chestnut-breasted Shelduck <i>Casarca tadornoides</i>	Mountain Duck <i>Tadorna tadornoides</i>
6.	Blue-winged Shoveller <i>Anas rhynchos</i>	Blue-winged Shoveler
7.	Hardhead (Aust. White-eyed Duck) <i>Aythya australis</i>	White-eyed Duck
8.	Swamp-Harrier <i>Circus approximans</i>	Swamp Harrier
9.	Brown Hawk <i>Falco berigora</i>	Brown Hawk
10.	Lewin Water Rail <i>Rallus pectoralis</i>	Lewin Water Rail
11.	Marsh Crake <i>Porzana pusilla</i>	Marsh Crake
12.	Australian Spotted Crake <i>Porzana fluminea</i>	Australian Spotted Crake
13.	Eastern Swampphen (Bald Coot) <i>Porphyrio melanotus</i>	Swampphen <i>Porphyrio porphyrio</i>
14.	Aust. Spurwinged Plover <i>Lobibyx novae-hollandiae</i>	Spurwinged Plover <i>Vanellus novae-hollandiae</i>
15.	Banded Plover <i>Zonifer tricolor</i>	Banded Plover <i>Vanellus tricolor</i>
16.	Hooded Dotterel <i>Charadrius cucullatus</i>	Hooded Dotterel
17.	Australian Snipe <i>Gallinago hardwickii</i>	Japanese Snipe
18.	Dominican (Southern Black-backed <i>Larus dominicanus</i>	Southern Black-backed Gull

R.A.O.U. 1975

Little Grebe

Tachybaptus novaehollandiae

Black-faced Cormorant

Leucocarbo fuscescens

Great Cormorant

Large Egret

Mountain Duck

Shoveller

White-eyed Duck

Swamp Harrier

Circus aeruginosus

Brown Falcon

Water Rail

Marsh Crake

Spotted Crake

Swamphen

Masked Plover

Vanellus miles

Banded Plover

Hooded Dotterel

Charadrius rubricollis

Japanese Snipe

Southern Black-backed Gull

R.A.O.U. 1978

Australasian Grebe

Black-faced Shag

Great Cormorant

Great Egret

Australian Shelduck

Australasian Shoveler

Hardhead

Marsh Harrier

Brown Falcon

Lewin's Rail

Baillon's Crake

Australian Crake

Purple Swamphen

Masked Lapwing

Banded Lapwing

Hooded Plover

Latham's Snipe

Kelp Gull

	R.A.O.U. 1926	C.S.I.R.O. 1969
19.	White Cockatoo <i>Kakatoe galerita</i>	Sulphur-crested Cockatoo <i>Cacatua galerita</i>
20.	Horsfield Bronze Cuckoo <i>Chalcites basalis</i>	Horsfield Bronze Cuckoo <i>Chrysococcyx basalis</i>
21.	Golden Bronze Cuckoo <i>Chalcites plagosus</i>	Golden Bronze Cuckoo <i>Chrysococcyx plagosus</i>
22.	Spotted Owl <i>Ninox novae-seelandiae</i>	Boobook Owl
23.	Spine-tailed Swift <i>Hirundapus caudacutus</i>	Spine-tailed Swift
24.	Australian Pipit <i>Anthus australis</i>	Australian Pipit <i>Anthus novaeseelandiae</i>
25.	Australian Ground-thrush <i>Oreocinclla lunulata</i>	Australian Ground-thrush <i>Zoothera dauma</i>
26.	Australian Reed-warbler <i>Acrocephalus australis</i>	Reed-warbler <i>Acrocephalus stentoreus</i>
27.	Superb Blue Wren <i>Malurus cyaneus</i>	Superb Blue Wren
28.	Brown Scrub-wren <i>Sericornis bumilis</i>	White-browed Scrub-wren <i>Sericornis frontalis</i>
29.	Striated Field Wren <i>Calamanthus fuliginosus</i>	Fieldwren
30.	Yellow-winged Honeyeater <i>Meliornis novae-hollandiae</i>	New Holland Honeyeater <i>Phylidonyris novaehollandiae</i>
31.	Striated Pardalote <i>Pardalotus striatus</i>	Yellow-tipped Pardalote
32.	White-backed Magpie <i>Gymnorhina hypoleuca</i>	White-backed Magpie
33.	Clinking Currawong (Bell-Magpie) <i>Strepera arguta</i>	Clinking Currawong
34.	Little Raven <i>Corvus mellori</i>	Little Raven
35.	Maned Goose (Wood Duck) <i>Chenonetta jubata</i>	Wood Duck
36.	Whistling Eagle <i>Haliastur sphenurus</i>	Whistling Eagle

R.A.O.U. 1975

Sulphur-crested Cockatoo

Rufous-tailed Bronze-Cuckoo

Shining Bronze-Cuckoo
Chrysococcyx lucidus

Southern Boobook

Spine-tailed Swift

Richard's Pipit

Scaly Thrush

Clamorous Reed-Warbler

Superb Blue Wren

White-browed Scrubwren

Fieldwren
Sericornis fuliginosus

New Holland Honeyeater

Striated Pardalote

Australian Magpie
Gymnorhina tibicen

Grey Currawong
Strepera versicolor

Forest Raven
Corvus tasmanicus

Wood Duck

Whistling Kite

R.A.O.U. 1978

Sulphur-crested Cockatoo

Horsfield's Bronze-Cuckoo

Shining Bronze-Cuckoo

Southern Boobook

White-throated Needle-tail

Richard's Pipit

White's Thrush

Clamorous Reed-Warbler

Superb Fairy-Wren

White-browed Scrubwren

Calamanthus

New Holland Honeyeater

Striated Pardalote

Australian Magpie

Grey Currawong

Forest Raven

Maned Duck

Whistling Kite

Continued page 9.

ISLANDS OFF THE SOUTH—WEST

Wildlife of islands lying off the south-west of Tasmania — De Witt, Maatsuyker, Flat Witch, Louisa, the Mewstone, and others — is the subject of an extensive 60-page survey in a booklet by naturalist Gary White, who, in the absence of more conventional accommodation, camped on some of them while doing his field work between 1975 and 1977.

His studies covered not only the birdlife, but extended to plants and animals, including the ecology generally. The result is a valuable record of the natural history of this small and hitherto little known archipelago of rocks and islets whose very isolation and extreme ruggedness has largely discouraged close biological examination.

There is much interesting source material to be derived from his studies, especially in relation to the destruction of young seabirds by rats. Huge numbers of the Eastern Swamp-rat — he counted over 400 in one spot — led to decimation of young of Fairy Penguin and Short-tailed Shearwater, almost to an alarming extent; more than once the rats invaded his tent. They entered the burrows to take the young birds.

While seabird colonies have long been known among the islands, the extent of these colonies and the species to which they belong, besides the number of land birds occurring on the group, have remained indeterminate. But White's studies, as well as those by earlier workers to which he refers, have resulted in a comprehensive assessment of the overall biology of the group.

Curiously two seabirds not seen were the Wandering Albatross and Cape Petrel, which are known to occur periodically in those waters as visitors.

Altogether "Islands of South-West Tasmania," (\$4.50), while of particular interest to Tasmania, will also have its appeal to anyone studying island faunas.

M.S.R.S.

A SILVEREYE'S CREST

Probably few people are aware of the very beautiful, though very soft, sustained song of the Silvereye. While listening to one of these on 26 July 1978 I noticed that the bird was erecting the feathers on its crown while singing. I have never seen a reference to this habit in the literature.

L.E.W.

There is currently much confusion regarding the names given to our avifauna, and for those who have not studied the situation in some detail a brief history follows.

The principal ornithological society in Australia, the Royal Australasian Ornithologists Union, published a checklist of Australian birds in 1913 and this was accepted by all authorities. A second and revised edition was published in 1926 and with minor amendments was accepted as the standard work for many years.

By 1960, however, the R.A.O.U. Checklist of 1926 was hopelessly out-of-date and there seemed no early prospect of a third edition being produced so the Australian Fauna Authorities asked C.S.I.R.O. Division of Wildlife Research to compile an index of bird names currently in use in Australia. This was published in 1969 and has been used in most modern books, including Slater's "Field Guides to Australian Birds" (2 volumes).

In 1975 R.A.O.U. Checklist of the Birds of Australia (Part 1) was published, together with an "Interim List of Australian Songbirds" which would later be replaced by Part 2 of the Checklist. Part 2 has not yet been published.

In 1978 R.A.O.U. published "Recommended English names for Australian Birds" as a supplement to its journal, "The Emu". This list also includes current scientific names but no other information which forms part of a checklist.

As modern field guides and most other current books are using the names in "An Index of Australian Bird Names" produced by C.S.I.R.O. in 1969 the *Tasmanian Naturalist* will continue to use them also, but where changes have appeared in the R.A.O.U. list of 1978 these will be added in brackets.

The list above shows the English names of the more common Tasmanian birds which have been altered in the various references listed, with the scientific names immediately below. These latter names have not been repeated where no alteration has occurred. It should be noted that only one Dotterel is listed with its change of name to Plover: all Tasmanian Dotterels (except the Red-kneed Dotterel which belongs to a different genus) are now Plovers.

BIRDS OF SOUTH BRUNY ISLAND

L.E. Wall

For such a small area the part of Bruny Island south of the Neck has a remarkable diversity of habitats so it is not surprising that over one hundred bird species have been observed there. These include all Tasmania's endemic birds except the Forty-spotted Pardalote which is one of the world's rarest. However it has been found at the northern end of Bruny Island and on the Tasmanian mainland a few kilometres west of South Bruny so there is a good prospect of adding it to the list.

The South Bruny Range of mountains extends in a north-south direction for almost twenty kilometres with its highest peaks exceeding 500 metres in altitude. Temperate rainforest and wet sclerophyll forest over much of the range provide excellent habitat for the endemic Green Rosella, Scrub Tit, Tasmanian Thornbill, Black Currawong and Yellow-throated, Strong-billed and Black-headed Honeyeaters: other birds of more widespread distribution also found here are Australian Ground-Thrush (White's Thrush), Grey Shrike-Thrush, Crescent Honeyeater, Brush Bronzewing, White (Grey) Goshawk, White-browed Scrub-wren, Olive Whistler and Pink Robin.

The hills between Simpson's Bay in the north and Great Taylors Bay on the west side are mainly covered by dry sclerophyll forest, the balance being cleared for grazing or orchards. The birds in this sector are typical of the habitat and include four species of cuckoos, three hawks, two thornbills, two pardalotes, Spotted (Southern Boobook) and Masked Owls, Swift Parrot, Spotted Quail-thrush, and the endemic Dusky Robin, Tasmanian Native Hen, Yellow Wattlebird and Clinking (Grey) Currawong.

Around Cloudy Bay and in the vicinity of Cape Bruny are extensive heathlands where Tawny-crowned, Crescent and New Holland Honeyeaters, Eastern Spinebills, Superb Blue Wrens (Superb Fairy-wrens), Field Wrens (*Calamanthus*), Beautiful Firetails and many others are found. The Tawny-crowned Honeyeater has a very restricted distribution in Tasmania but this is one of its strongholds. Two parrots which are not on the list at present are possibilities in this habitat. The Ground Parrot, a very rare bird on the Australian mainland, is present in good numbers on Tasmania's west coast where it is frequently flushed from buttongrass and heathlands and there are a few records in other parts of Tasmania, principally in heathland areas around the coasts. Because of its secretive habits it is not easily observed but I believe it will be found here. The other which should be mentioned is the Orange-bellied Parrot which is in extremely small numbers and is listed in the I.U.C.N. Red Book "Wild Life in Danger". This is also an inhabitant of the west coast but was found in good numbers on the Acteon Islands about ten kilometres west of Cape Bruny by famous ornithologist John Gould in 1838.

There is very little fresh water on South Bruny, no large lagoons and only a few small farm dams. Just north of Cloudy Bay Lagoon (which is tidal) is a large marsh but this has been drained and converted to improved pasture and there is a swampy area behind Adventure Bay township. Waterfowl are consequently in very restricted numbers and limited to Black Swan, Black Duck (Pacific Black Duck), Chestnut Teal and Blue-winged Shoveler (Australasian Shoveler) with Tasmanian Native Hen, Swampen (Purple), Spotted (Australian) Crake, White-faced Heron, White (Great) and Little Egrets and Japanese (Latham's) Snipe about the margins.

With a considerable length of coastline which includes on the exposed coasts high cliffs and long sandy beaches with high dunes behind and many sheltered bays, some with extensive tidal sandflats and others with pebbly beaches, a wide range of birdlife can be expected.

The penguins form an interesting group because some sub-antarctic species come as far north as this to undergo their annual moult in autumn. Crested (Rockhopper) Penguins appear to be the most common of these but in recent years the Snares Crested Penguin has also been identified and may well prove to be a regular visitor. It is interesting to note that Adventure Bay, Bruny Island, is the type locality for the Rockhopper Penguin. Among the other sub-antarctic penguins recorded in southern Tasmania are King, Royal, Gentoo and Thick-billed (Fiordland), and it is most likely that closer observations will show that these, too, occur on South Bruny Island at times. The Little Penguin is a common resident and breeding species.

The family Laridae (Gulls and Terns) forms another interesting group. The Silver Gull and the Pacific Gull are resident breeding species, and the Southern Black-backed (Kelp) Gull has its largest known nesting colony in Tasmania (and maybe in Australia) on Green Island in d'Entrecasteaux Channel between Bruny Island and the Tasmanian mainland. The first recorded nesting in Tasmania of the Kelp Gull was on Curlew Island in Great Taylors Bay. Green Island also has a substantial nesting colony of Crested Terns and a small colony of Caspian Terns. The Fairy Tern was confirmed as a breeding species on South Bruny Island two years ago. The White-fronted Tern has an unusual history as far as Tasmania is concerned: it is an east-west migrant between Australia and New Zealand where it is known to nest regularly. There is a clutch of eggs of this species in the Tasmanian Museum marked as having been collected on The Friars, a group of rocks off the south-east tip of Bruny Island, in November 1885 but this record has always been treated with reserve. In the last two years, however, there have been four positive records (supported by photographs) of the White-fronted Tern nesting in the Furneaux Group in Bass Strait so it seems that the Bruny Island record should not be discarded.

The closely related family of Skuas is represented by three species — the Southern (Great) Skua which is common in winter but retires to breed in the sub-antarctic region in summer, and the Arctic and Pomarine Skuas (Jaegers) both of which are about our coasts in summer but breed in the northern hemisphere.

The Black-faced (Shag), Little Pied, and Black Cormorants are regularly seen around the coast, and the Little Black Cormorant less frequently. In some years the last-mentioned seems to desert Tasmania presumably when mainland conditions are very favourable to it.

The ocean wanderers — albatrosses, petrels and shearwaters — are frequently seen offshore but with the exception of the Short-tailed Shearwater (Tasmanian Muttonbird) they have not received close attention from bird observers and much is still to be learned of their habits and movements. Identification of many of these is difficult in the field. The White-capped (Shy) Albatross nests in considerable numbers on Pedra Branca and Mewstone, two isolated rocks about fifty kilometres to the south-west (and Australian Gannets also nest on them), and other species can be expected to be seen at times — Wandering, Royal, Black-browed, Yellow-nosed and Light-Mantled Sooty Albatrosses.

The Short-tailed Shearwater, or Tasmanian Muttonbird, can be seen regularly between September and April: during our winter months its temporary home is in the North Pacific Ocean. Vast numbers nest each year on headlands and offshore islets around South Bruny and it is known that on Courts Island, just offshore from Cape Bruny some Sooty Shearwaters also breed among the Short-tails. It is likely that Diving Petrels, Storm Petrels and Fairy Prions, and possibly others of the group, also nest on remote parts of the coast.

White-breasted (White-bellied) Sea Eagles are regularly seen patrolling the shoreline and several nesting sites are known. John Gould, the ornithologist, secured a specimen of Osprey at Recherche Bay on the adjacent mainland of Tasmania in 1838 but this species must be considered a very rare vagrant on these coasts.

The shore birds or waders might be expected to be numerous in the sheltered bays with extensive sandflats but the number of species is very restricted and in most cases each species is in small numbers; the exceptions are the resident breeders Pied and Sooty Oystercatchers, Masked Plover (Lapwing) and Red-capped and Hooded Dotterels (Plovers). The reason for the paucity of migratory waders, which breed in northern Asia or Alaska, appears to be that they prefer mudflats which provide more food for them than sandflats. The only migratory waders known from South Bruny are — Lesser Golden Plover, Grey-tailed Tattler, Red-necked Stint, Eastern Curlew, Sharp-tailed Sandpiper and Ruddy Turnstone.

BACK NUMBERS OF TASMANIAN NATURALIST

The Club's periodicals have been issued in four series —

Tasmanian Naturalist	April 1907 — April 1911 (7 numbers)
“ “ (new series)	Oct. 1924 — June 1928 (9 “)
“ “ “ “	May 1946 — Feb. 1955 (7 “)
“ “ (current series)	May 1965 —
	published quarterly

Copies are still available from the Librarian, G.P.O. Box 68a, Hobart, 7001, at a very moderate cost.

Reports of the Club's Easter Camps were published separately and copies of those still available are listed below —

Bream Creek, 1905	Schouten Is. 1906
Wineglass Bay, 1909	Coles Bay, 1910
Safety Cove, 1913	Wineglass Bay, 1914
Maria Is., 1915	Eaglehawk Neck, 1916
Wedge Bay, 1917	Safety Cove, 1918
Eaglehawk Neck, 1919	Adventure Bay, 1921
Adventure Bay, 1922	Marion Bay, 1924
Schouten Is., 1925	Safety Cove, 1926
Swansea, 1928	