

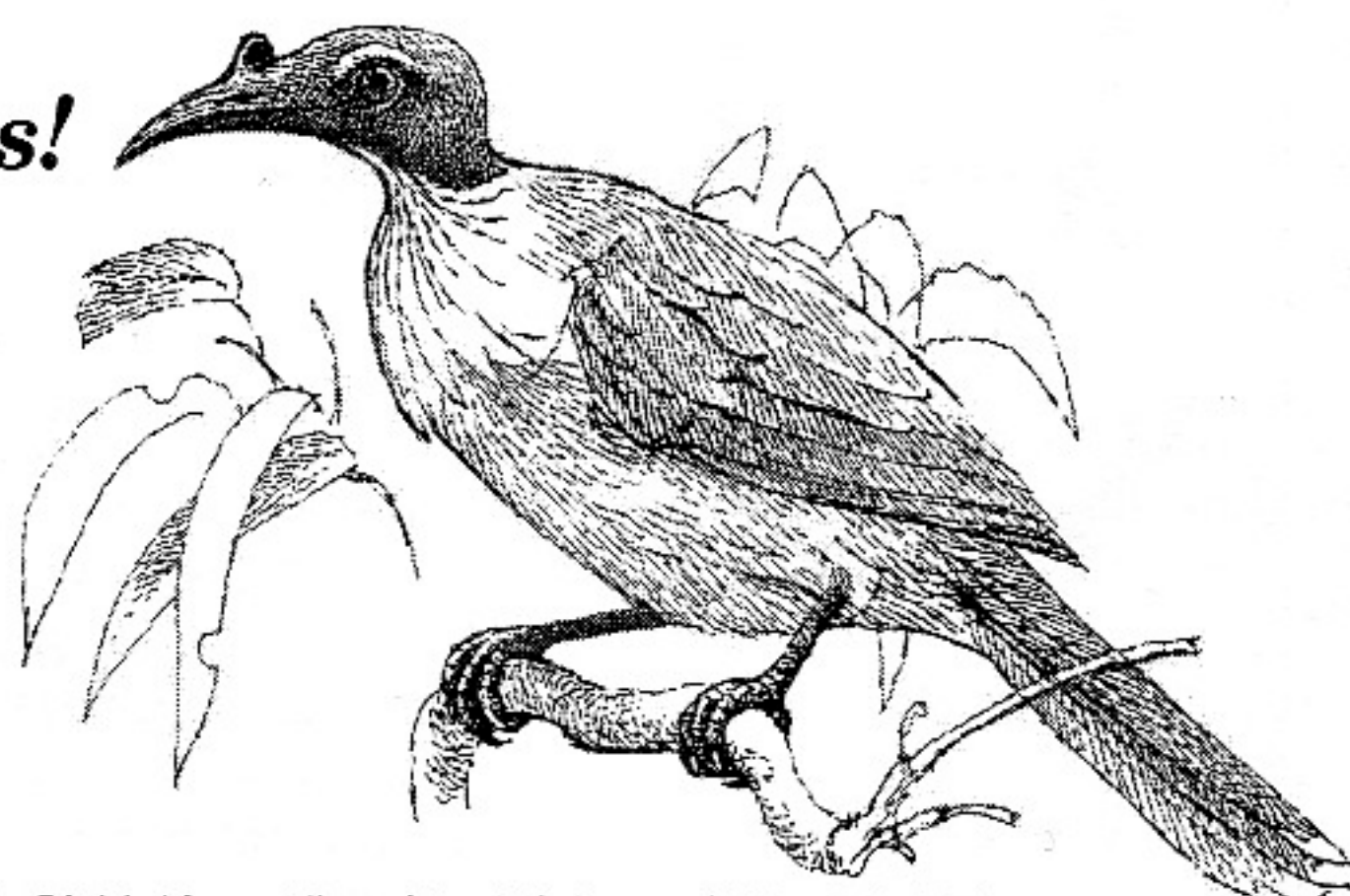
FRIARBIRDS

Australia's wackiest songsters!

Cacophonous, querulous, raucous, rollicking, cackling, metallic, weird, comical - these are some of the call descriptions for Australia's friarbirds whose wonderful songs are guaranteed to put a smile on the face of any listener.

Friarbird vocalizations range from single and double note calls, to elaborate and highly variable phrases, plus some wonderfully wacky out-of-synch duets and group choruses.

These large honeyeaters feed on nectar, fruit and insects, and often gather in noisy groups. They occur in Australia, Papua New Guinea and east Indonesia. The bugle-like calls of the Helmeted Friarbird in PNG are so loud that they are audible from ships off the coast, and can be heard all day and often at night - I'd love to hear that! Where I live in Capertee Valley in NSW, flowering eucalypts bring feasting Noisy Friarbird flocks, and their boisterous calls can be heard from several kilometres distant.



Noisy Friarbird from Atlas of Aust Birds — artist Frank Knight.

four different species in Australia

The name 'friarbird' comes from the featherless heads of these birds, said to resemble the shorn heads of medieval monks and friars; another name for them is leatherhead. There are four friarbird species in Australia - the Little, Helmeted, Silver-crowned and Noisy, and these four species include nine different races. In parts of Northern Australia all four species can occur together, so knowing the calls can be helpful in separating the different species in the field. Bird field guides are useful in showing the main plumage variations.

The Little Friarbird has the widest distribution, occurring in eastern and northern Australia. Helmeted and Silver-crowned Friarbirds occur in northern Australia, while the Noisy Friarbird is found in eastern Australia.

All these species are at least partly nomadic as flocks move between suitable feeding locations.

calls have been poorly studied

Given the conspicuous nature of friarbird calls it is surprising to learn from HANZAB Vol. 5 (Handbook of Australian, New Zealand & Antarctic Birds) that 'Voice' for all four Australian species says, little information; poorly known; poorly studied; little known. So what better place than the Audiowings journal to make friarbird vocalizations better known!

I offer here a few of my own observations on friarbird calls and behavior, and in particular I describe those diagnostic calls that can help separate the four species, in other words, what we should listen for in the field. Included also are a few comparative sonograms (Figs. 1-4) for calls and song phrases. I am by no means a friarbird expert, and if anybody would like to add their own observations and recordings, that would be great!



You can listen to some of my friarbird recordings on the accompanying Audiowings CD # 16, while you follow the sonograms in Figures 1-4.

OBSERVATIONS ON BEHAVIOUR AND CALLS

In Capertee Valley, NSW I have watched and recorded a flock of 300-500 Noisy Friarbirds as they fed and squabbled in flowering White Box trees, early in May 2005. And too I have watched a small flock of about ten Noisy Friarbirds swooping from low perches to feed on flying meat-ants, late afternoon in March after a storm. As the friarbirds swooped and fed, they gave ringing 'ker-lip' calls. In July and August in some years, the Noisy Friarbirds partake of what I call 'sunset chorusing', perhaps 50-200 birds will congregate in sunlit treetops in the stillness of late afternoon, and give their chorusing calls, as if in pure celebration of being alive.

Up north in the Queensland Gulf country in July, early morning, I've recorded Silver-crowned Friarbirds duetting and chorusing as they bathed in the dripping foliage of melaleuka trees - the condensation had come from an overnight sea fog. And at midday I've watched these birds hanging upside down from branches of flowering trees, in seemingly drunken antics and possibly intoxicated from nectar that had fermented in the tropical noonday sun.

Also in the Queensland Gulf, at the Norman River in July, Little Friarbirds were dominant with their squabbling calls as they fed on flowering grevillia and melaleuka trees. I saw several beak-and-claw duels where two birds with feet and beaks interlocked, would

tumble squawking from trees to the ground. A group of perhaps 50-100 gave different sorts of calls at different times of day, with single and double-note calls early morning, fuller 'drunken' song in the middle part of the day, and a melodious 'kow' call at dusk.

On the tropical sandstone escarpments of Kakadu National Park (Arnhemland, NT) I was privileged to see and record the Helmeted Friarbird (subspecies *ammitophila*). They gave short calls during the day (and a different short call for morning and evening). Then in the late afternoons in August a small group would take up their positions in treetops either side of a waterhole, and begin some wonderfully mis-synchronized duetting and group calling. One or more would start up a falsetto refrain, and another one or two would join in to sing the typical slow, swingy and emphatic 'whack-a-where' type of calls. The effect was of a very enthusiastic group of amateur musicians playing two entirely different pieces over the top of one another, and badly in need of a conductor.

Here then are the main call types of friarbirds that I would be listening out for in the field, based on my own experiences.

WHAT TO LISTEN FOR

Little Friarbird

- mellow double-notes
- high pitched mewling calls
- stuttered song phrases with harsh syllables
- various falsetto refrains (similar to Helmeted)

Helmeted Friarbird

- mellow 1-syllable calls
- harsh 'karrk' calls
- peacock-like timbre (i.e. loud and resonant)
- set menu of phrases repeated over and over
- out-of-synch duetting and chorusing
- various falsetto refrains (similar to Little)

Silver-crowned Friarbird

- high-pitched 'squeak-honk'
- harsh-squeaky 'kak' calls
- phrases with squeaky hiccups
- set menu of phrases repeated over and over
- out-of-synch duetting and chorusing

Noisy Friarbird

- 3-4 syllable mellow calls
- harsh-squeaky 'kak' calls
- simple repeated phrases
- complex non-repeated song phrases sometimes with trilled ending
- out-of-synch duetting
- mass chorusing



Noisy Friarbird

ANALYSIS OF CALLS & SONGS

This more detailed analysis is taken from about 5 hours of recorded sound clips that have been extracted from my field tapes of 1986 to 2006. The calls and songs described below are illustrated with sonograms in Figures 1-4 and can also be heard on the accompanying CD.

LITTLE FRIARBIRD

(32 minutes of calls analyzed, from field tapes July 1990 and 1993)

CALLS (see Fig. 1)

Calls from Norman River Q, race *sordidus/citreogularis*, included the typical mellow double-note calls e.g. 'ker-low', 'ker-wip', 'y'wot', and a mellow single-note 'kow' was given intermittently as the sole call at dusk. High-pitched mewling occurred often from a group of about 50-100. Calls from other locations were similar.

SONGS (see Fig. 1)

Norman River song phrases typically contained short harsh syllables combined with stuttering and gurgling, 3-10 seconds in length. Lawn Hill Q, Katherine and Kakadu NT (race *sordidus*) songs were similar but included falsetto refrains from one or more birds incorporating 2-4 syllable calls eg. 'go-to-the-limit' repeated 2-6 times, and 'pretty-boy' repeated 6-14 times. These refrains were similar to Helmeted but diagnostic for both species when heard in context. The sound quality of Little Friarbirds is thinner compared to other friarbirds.

HELMETED FRIARBIRD

(24 minutes of calls analyzed, all from Koolpin Gorge, Kakadu NP, NT, race *ammitophila*, from field tapes July 1990 and August 1993.)

CALLS (see Fig. 2)

Mellow 1-syllable calls 'korr' or 'k-korr' given intermittently in early morning and mellow 1-syllable call 'ke-op' or 'kowp' given intermittently at dusk. Occasional series of 3-5 harsh calls 'karrk' given at 1-2 sec. intervals when feeding, possibly an aggression call. In general the Helmeted calls are loud and resonant and have a peacock-like timbre.

SONGS (see Fig. 2)

Song phrases occurred as solos, duets and choruses and were slower and more emphatic than other friarbirds, often in swingy waltz time e.g. the 'whack-a-where' type of phrases. There was a set menu of at least 4 phrases that would be repeated 4-7 times either as solos or duets.

solos (see Fig. 2)

Solo phrases included 'wow-kar', 'we-o-we-kk-kower', 'kok-a-warrit', and 'whack-a-where', also the higher-pitched falsetto refrain e.g. 'we-kar' and 'prit-te-boy-ee'. All of these phrases were also used in duets and choruses.

duets and choruses (see Fig. 2)

Out-of-synch duetting and chorusing occurred frequently in a small group of about 10-20 birds. Duetting phrase combinations varied and sometimes changed mid-way through a duet. Duetting birds might be close together, or either side of a waterhole. In duets and choruses 2 birds may give the same 'whack-a-where' type of phrase almost in unison, or 2 birds may give 2 different falsetto refrains together, or 2-4 birds may give falsetto refrain plus 'whack-a-where' variations, simultaneously. Duets lasted from 20-23 secs. The falsetto refrains 'we-kar' and 'prit-te-boy-ee' are similar to Little Friarbird but unmistakably Helmeted if given as part of a duet. The 'prit-te-boy-ee' refrain was often extended, once up to 1 min 40 secs.

SILVER CROWNED FRIARBIRD

(16 minutes of calls analyzed, from field tapes July 1987, 1990 and 1993)

CALLS (see Fig. 3)

Calls were from Lawn Hill, Q, Bundilla Waterhole nr. Hell's Gate Q, and Katherine NT, race *argenteiceps*. The high-pitched 'squeak-honk' call was diagnostic and often heard. There were also lower-pitched harsh 'kak' calls that were similar to one of the Noisy Friarbird calls. A mellow, mournful dusk call 'kow' was recorded at Edith Falls near Katherine, NT, by Tony Baylis, July 2000.

SONG (see Fig. 3)

Song was recorded at Lawn Hill, Q, Bundilla Waterhole nr. Hell's Gate Q, and Katherine NT, race *argenteiceps*

solos and choruses (see Fig. 3)

There was a set menu of short 2-3 syllable phrases that would be repeated 4-15 times, e.g. 'kok-worrick', 'kak-ok-ker-loo', 'kak-wok' (no sonogram), 'karrick-will' (no sonogram). Background birds often gave the same phrase at the same time but not in unison. Gurgles and squeaky hiccuping calls were often incorporated into songs.

duets (see Fig. 3)

The 24 sec. example heard on the CD is from Bundilla Waterhole Q and is analyzed as follows:

Duet is preceded 17 rapid 'kak' calls then one bird gives 2 solo 'kar-woo-hiks'. The 2nd bird then joins in with the same phrase but slightly out-of-synch. The phrase changes slightly, then both birds seem to stop calling together. Perhaps because both birds sang the same phrase, it may have been two males? These birds were part of a small group. HANZAB says that according to one account, in duets, the male gives the song, and the female breaks in part way through with a series of disyllabic calls. I haven't heard this type of duetting yet. And I am still unsure if it is the male or female that gives the 'squeak-honk' call.

LITTLE FRIARBIRD Fig. 1

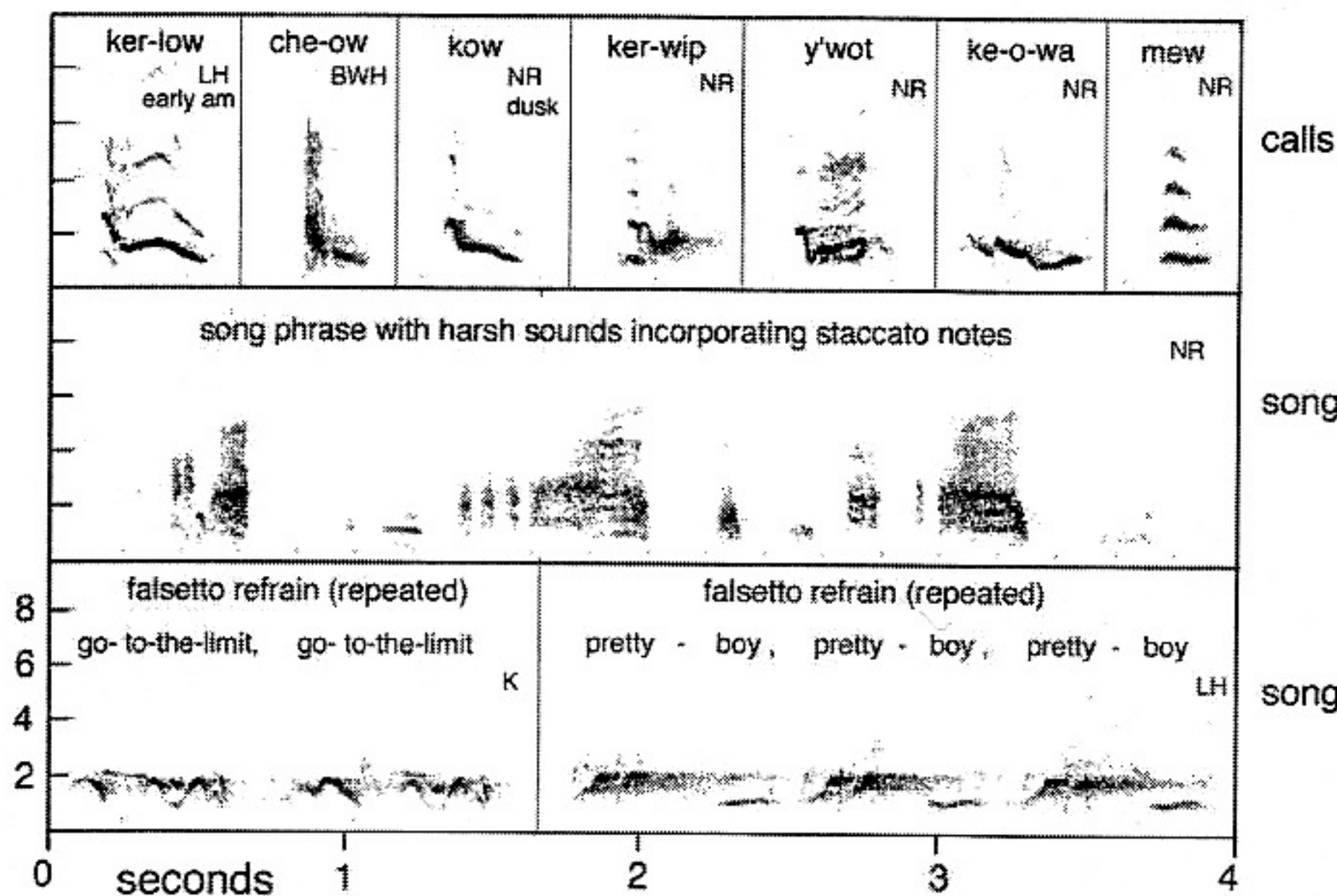
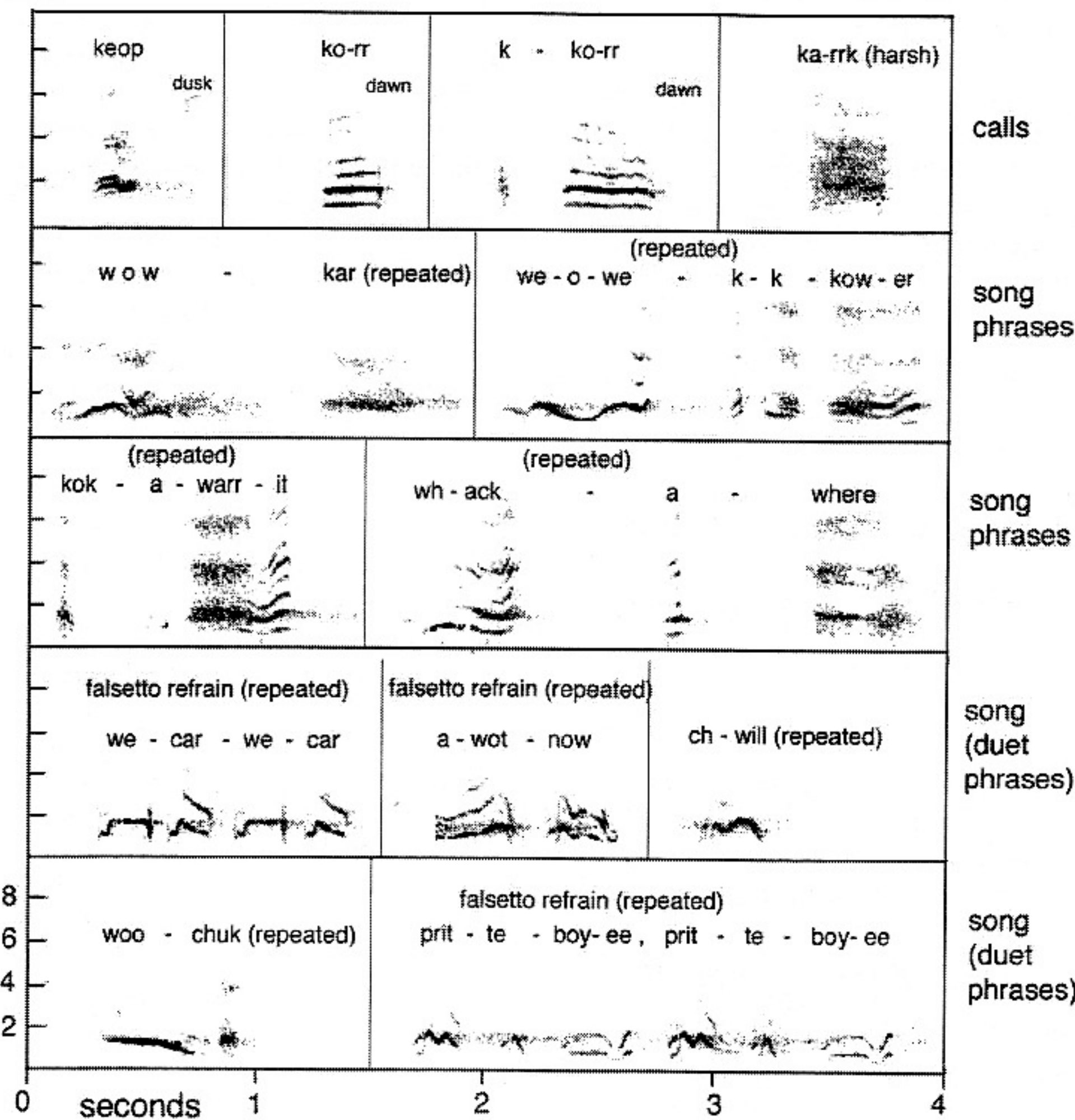


Fig 1. Little Friarbird
locations: NR = Norman River, Qld
LH = Lawn Hill, Qld
BWH = Bundilla Waterhole nr. Hell's Gate, Qld.
K = Kakadu, UDP Falls
Showing double-note calls, a song phrase, and 2 different falsetto refrains. These sounds can be heard on the CD.

Fig 2. Helmeted Friarbird
all locations are Koolpin Gorge, Kakadu National Park, Arnhem Land (sandstone escarpment)
Showing 1-syllable calls, various song phrases, and phrases that were included in duets. These sounds can be heard on the CD.

HELMETED FRIARBIRD Fig. 2



NOISY FRIARBIRD

(more than 4 hours of calls analyzed, from field tapes 1993-2005)

CALLS (see Fig. 4)

Calls were from Capertee Valley and War-rumbungles NSW, race *monachus*. Diagnostic and commonly given were 3-4 syllable mellow calls such as 'four o'clock' and 'wot-colour'. Some 2-syllable calls were like Little Friarbird, e.g. 'ke-op', 'kerlip'. Sometimes a series of harsh-squeaky 'kak' calls were given when feeding.

SONG (see Fig. 4)

Song was from Capertee Valley NSW, race *monachus*. There were simple and complex types of song, with the complex song phrases being more varied in content than for other friarbirds.

solo (see Fig. 4)

Simple solos were syllables repeated up to 11 times, such as 'do-be-careful', 'wow-kok' and 'wow-kar-k-kok'. Complex solos lasted 4-12 seconds with no repeated syllables in any one phrase. Complex solos sometimes ended in a hard staccato trill. These complex solos seemed to contain much free improvisation in their content, and successive phrases were often different from one another.

duets (see Fig. 4)

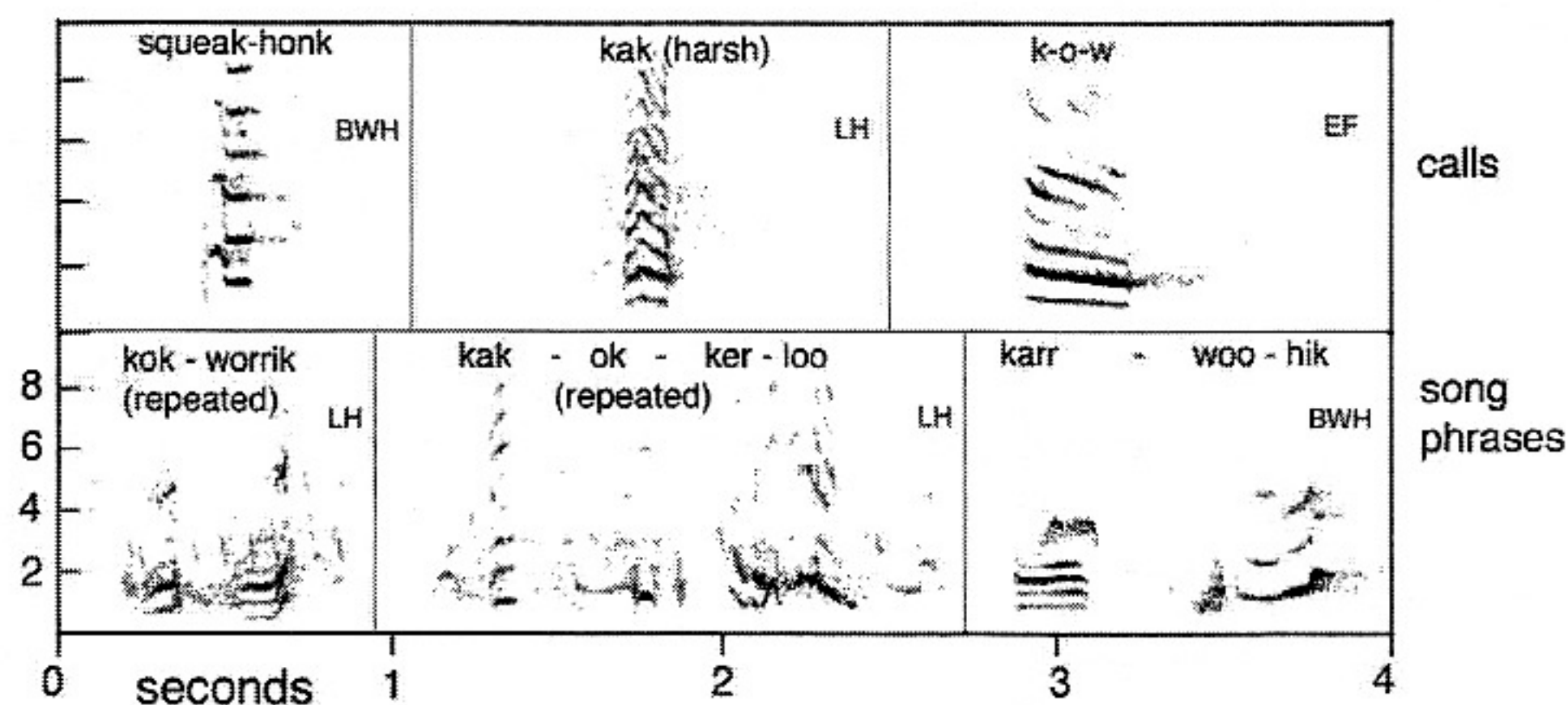
The same phrases given in solos were also used in duets, and the phrases sometimes overlapped by 1-2 seconds and were out-of-synch. Duets were 4-14 seconds in length. There were several duet styles including a simple 2-3 syllable refrain combined with a more complex phrase (possibly male and female).

Another type was possibly 2 males, with both birds giving different complex phrases over the top of one another, starting and finishing together, or with one adding a trill at the end.

chorusing

50+ in sunset chorus started and stopped unison after many minutes of calling, all birds giving different sorts of calls and songs together. When white box trees were flowering, 300-500 chorused from early morning until middle day, giving calls, simple phrases and complex phrases.

kHz SILVER-CROWNED FRIARBIRD Fig. 3

**Fig 3. Silver-crowned Friarbirds**

locations: BWH = Bundilla Waterhole
nr. Hell's Gate, Qld.

LH = Lawn Hill, Qld

EF = Edith Falls, Katherine

Gorge NP, NT (recording by Tony Baylis)

Showing 1-syllable calls, and 3 different song phrases. These sounds can be heard on the CD.

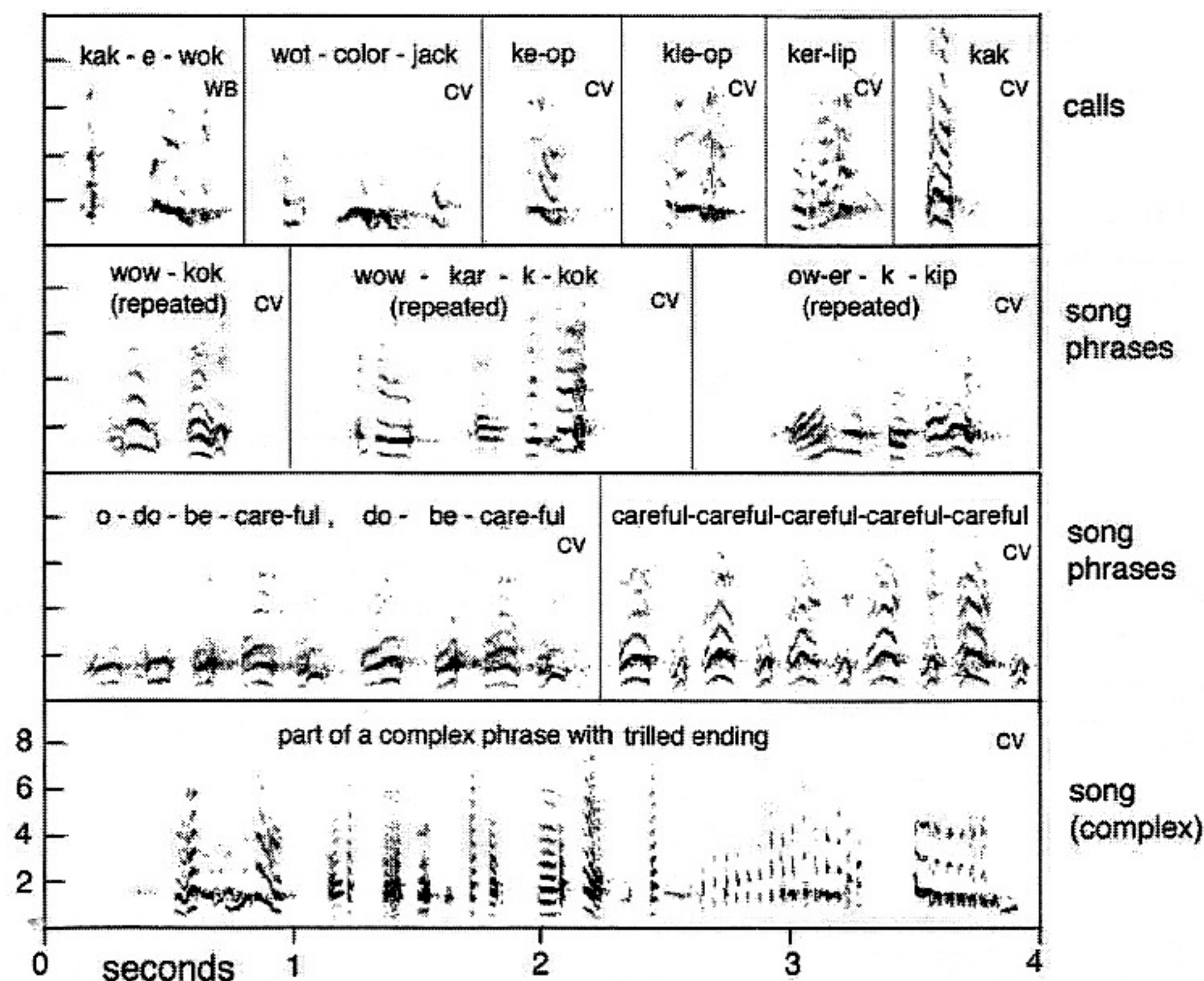
Fig 4. Noisy Friarbird

locations: WB = Warrumbungles, NSW

CV = Capertee Valley, NSW

Showing 2 and 3 syllable calls, harsh kak call, various song phrases that were repeated several times, and the end part of a 10 second complex song that had no repeated elements. These sounds can be heard on the CD.

kHz NOISY FRIARBIRD Fig. 4



DISCUSSION

There are still many questions to be answered regarding friarbird vocalizations. For one thing, a comparison of the different races might be interesting. The really big question that begs to be answered is how many different sorts of calls and phrases are there, for each species? And what are those calls and phrases? Are there dialects and geographical variation? Do females have the higher-pitched calls? Is it females that sing the 'falsetto refrain'? In duets where two birds give the same type of phrase (whether high-pitched or low-pitched), is it two birds of the same sex 'duelling' rather than a true male-female duet? Or perhaps it is like lyrebirds, where two males can sing almost in unison, one lagging slightly behind the other, as one bird learns the song from the other? For the Noisy Friarbird, are the 'free improvisation' phrases ever repeated? Do friarbirds ever duet IN-synch? Do different sorts of calls match different sorts of behaviour? There is a great need to collect the full repertoire for all friarbird species in more detail, one species at a time. To do that, more recordings and observations are needed. As HANZAB says, friarbird vocalizations are currently poorly known, so hopefully that is some incentive for Audiowings members to keep on recording! If you have any friarbird recordings, I would love to hear them.

EQUIPMENT USED

Recordings were made with a Sony WMD6C cassette recorder and binaural tie pin mics; also a Sony TCD D10 DAT recorder with Sony ECM-MS5 stereo mic, or Sennheiser ME 67 mic, or two Sennheiser ME 64 mics. Sonograms were made using an iMac computer, Audiograph software and Adobe Photoshop.

REFERENCES AND FURTHER READING:

- Handbook of Australian, New Zealand and Antarctic Birds (HANZAB) vol 5
 - The Directory of Australian Birds, Passerines, Schodde & Mason (for information on races)
 - various bird field guides
 - Birdsong, Catchpole & Slater, for general descriptions and terminology for duetting & chorusing
 - Bird Observers Club of Australia, A Field Guide to Australian Birdsong (CD set), CD 7 includes all 4 friarbirds
- Audiowings CDs 1, 4, 5, 10, and 12, for friarbird calls.

Vicky Powys