

Acknowledgement

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Frequency band usage in some bird species

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It has been suggested that different species of birds use different parts of the sound spectrum in the same way as different radio stations use different bands for communication without disrupting each other. The term 'acoustic niche' has been used to describe the partitioning of this 'resource'.

Six common vocal species were recorded, some of them together, and their spectrograms examined in the light of this hypothesis

1. White-cheeked Barbet *Megalaima viridis*
2. Red-whiskered Bulbul *Pycnonotus jocosus*
3. Yellow-browed Bulbul *Iole indica*
4. Spotted Babbler *Pellorneum ruficeps*
5. Indian Scimitar Babbler *Pomatorhinus horsfieldii*
6. Quaker Tit-Babbler *Alcippe poioicephala*

The calls were recorded using a Nikon CoolPix 3700 digital camera. The sounds are recorded digitally as WAV files. The files were then analyzed using sound analysis software (CoolEdit 96). Spectrograms were captured from the screen and the images were cleaned up using image manipulation software to generate the illustrations included.

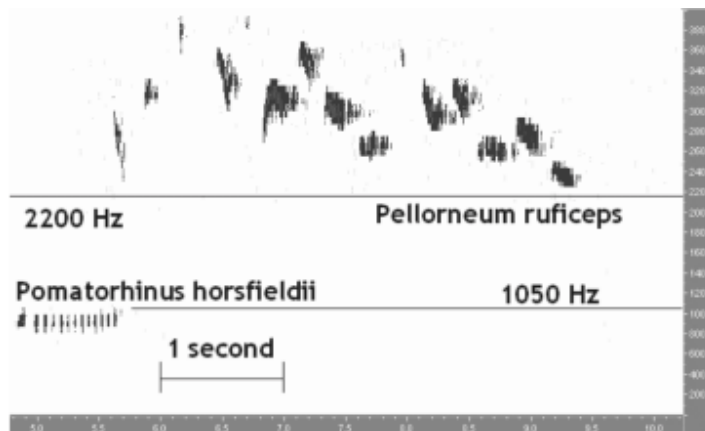
All the bird species were recorded close to the town of Thithimathi in the Kodagu district of Karnataka during early December of 2004. The calls were recorded without the use of parabolic reflectors or special microphones. Where calls overlapped they are shown in the spectrograms as they occurred in the actual recording and were not separated.

The frequency band usage for the chosen species was as follows.

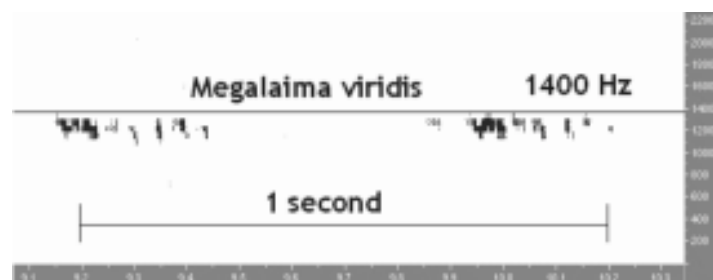
White-cheeked Barbet	1100 – 1400 Hz
Red-whiskered Bulbul	2500 – 4000 Hz
Yellow-browed Bulbul	1700 – 2400 Hz
Spotted Babbler	2400 – 3800 Hz
Indian Scimitar Babbler	800 – 1050 Hz
Quaker Tit-Babbler	2400 – 3700 Hz

There appears to be a fairly clear separation of the bands in which each of these species calls. The Red-whiskered Bulbul used the widest frequency band and it is interesting to note that the call notes are extremely short. Like traditional niches, it is perhaps possible that the communication medium can also be shared in the time dimension.

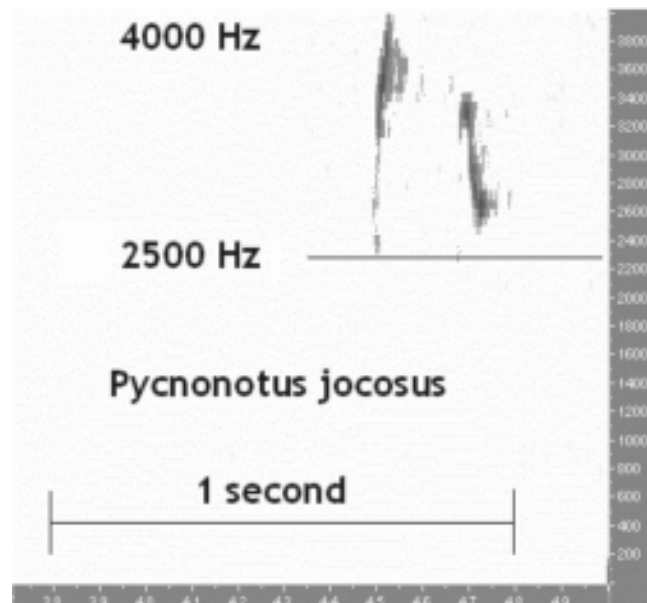
It should be noted that the recordings were not made with the purpose of this analysis and the equipment used was far from ideal for such an analysis. However it is hoped that these preliminary observations could suggest directions for detailed studies. These can also have implications for birds in urban settings where noise levels are increasing.



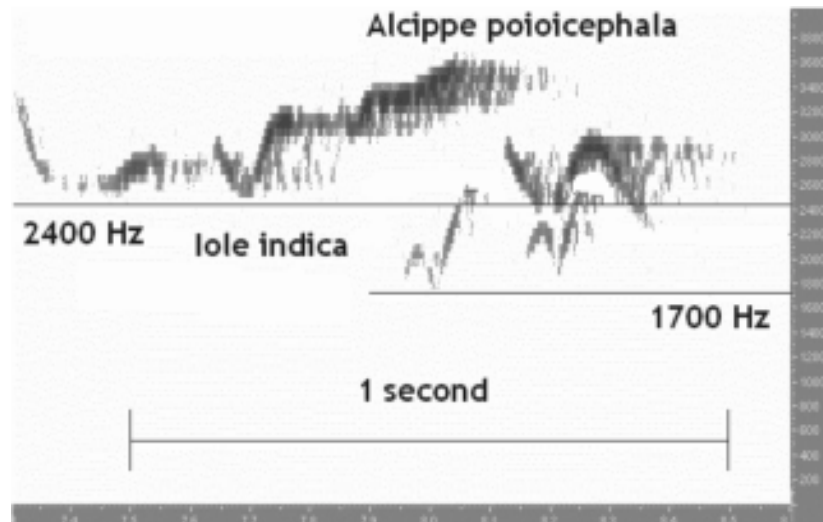
Duet call of Indian Scimitar Babbler followed by call of Spotted Babbler



Call of Small Green Barbet.



Two-note call of Red-whiskered Bulbul



Quaker Tit-Babbler and 'pick-wick' call of Yellow-browed Bulbul

CORRESPONDENCE

300 Great Crested Grebes

Podiceps cristatus

A friend and I visited Tumeria Dam (near Corbett National Park, Nainital district, Uttaranchal) on 29.i.2005, and spent two hours watching birds. Great Crested Grebes *Podiceps cristatus* were everywhere. Near the shores of the dam, we counted 300 in two hours. This large congregation of Great Crested Grebes is of special interest as Varu and Perennou (*pers. com.*) have seen over 140 of them at Tappar Dam in Kutch (Gujarat) about 10 years ago.

The other birds sighted were four Asian Open-bill Storks *Anastomus oscitans*, 15 Brahminy Shelducks *Tadorna ferruginea*, two Mallards *Anas poecilorhyncha*, 450 Northern Pintails *Anas acuta*, 20 Garganey *Anas querquedula*, 269 Northern Shovellers *Anas clypeata*, and 8,000 Common Coots *Fulica atra*.

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Population outbreaks of Lesser Bandicoot-rat *Bandicota bengalensis* in Chhari-Dhand, and concentration of raptors

In 1990, one of us (JKT) observed a population outbreak of Lesser Bandicoot-rat *Bandicota bengalensis* in Chhari-Dhand (Banni Grasslands, Kachchh, Gujarat). In an area of 15x5km, there were innumerable

burrows and thousands of Lesser Bandicoot-rats were seen. They fed on *Eleocharis* reeds and *Cyperus* sedge tubers and stalks. Raptors were attracted by the high concentration of these rodents and up to 250 Steppe Eagles *Aquila nipalensis* were counted around Chhari-Dhand. Other raptors seen were five species of vultures, Short-toed Snake-Eagle *Circaetus gallicus*, Western Marsh-Harrier *Circus aeruginosus*, Pallid Harrier *Circus macrourus*, Long-legged Buzzard *Buteo rufinus*, and Indian Spotted Eagle *Aquila hastata*, Eastern Imperial Eagle *Aquila heliaca*, and Common Kestrels *Falco tinnunculus*. Tawny Eagle *Aquila rapax* nests were seen near the Dhand. In all, 32 species of raptors, including Short-eared Owl *Asio flammeus* were seen.

In January 2005, we were at Chhari-Dhand and again noticed the same phenomenon – a population outbreak of Lesser Bandicoot-rats. This time the Dhand was completely dry. Burrows of the Lesser Bandicoot-rats were all over the place and there was a large gathering of raptors. We spotted seven Long-legged Buzzards, six Tawny Eagles and 40 Steppe Eagles *Aquila nipalensis* within a span of two hours.

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Spot-billed Pelicans *Pelecanus philippensis* at Uppalapadu:

2004-2005 season

About 970 pelicans arrived at Uppalapadu (Guntur district, Andhra Pradesh, India) from the second week of September up to the end of November 2004 and constructed approximately 400+ nests. Summary details of the population of birds during this season (2004-2005) are as follows:

Date of count	Population including young birds
18.i.2005	1,293
28.i.2005	1,350
15.ii.2005	1,500
21.ii.2005	1,500
15.iv.2005	960

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