

TO:	<bngbirds@egroups.com>
FROM:	muscapa@mailandnews.com
SUBJECT:	[bngbirds] The distribution of birds and birdwatchers in India (long)
Date:	Tue, 15 Aug 2000 12:35:57 +0530

MESSAGE:

Hi all,

This following is an outline of some thoughts that have been discussed among some of us.

Dr. Arunachalam Kumar once made a summary of the contributors to the Newsletter for Birdwatchers. Some years ago, i was just leafing through a bundle of old newsletters(1990-2000 + some issues from 72-74) and decided to mark out the locations of each contributor on a rough map. I recently discovered the sheet and decided to scan it before the roaches got to it. The scanned image is at <http://www.crosswinds.net/~muscapa/images/bwdist.gif> (7 KB) (The map and marking was done roughly by hand, eye and atlas and like the birds i have not marked political boundaries.) I marked the location of the contributor and drew a circle of roughly 100 Kms around them. The reasoning is that most birders would get to see around them a fair representation of what is within that distance or would go around in that region to see the best spots. Where there were large numbers of birders I decided to draw a slightly larger circle. While the rationale is questionable the resulting pattern is quite interesting.

Southern India and much of the Western Ghats is fairly well covered by birdwatchers who are resident there. I must point out here that I have not used tourist areas with a large number of visiting domestic and foreign

birdwatchers. I have however added major long-term study areas such as Bharatpur, Point Calimere and Pulicat lakes. The North Indian Plains towards the desert regions seems to be well covered. The Himalayan foothills are covered only at a few locations. The same is true of the North East and the North West. But perhaps the largest blind spots seem to be the Eastern Ghats and the Central Indian Hills. (Perhaps the reason for our biggest surprises and rediscoveries ?)

The 'Handbook' gave general statements about bird distributions and allowed readers to decide if a particular species was liable to be present in a given habitat in a given wider geographic zone. However many of the newer publications have bird distribution maps that appear to show very accurate bird distributions. One would expect that these distributions are based on a compilation of a large number of point sightings and the use of some kind of enveloping polygon/curve around these points along with habitat information. It would perhaps be more useful if individual points are available so as help in giving additional information about the abundance of the species.

Aasheesh Pittie's effort to put together small everyday sightings might perhaps give us a bigger and more accurate picture some day.

It is also interesting to note how such data is put together in other countries through cooperative effort. The success of these projects perhaps is the 'open-ness' of the data collection, presentation and analysis.

The Canadian Étude des Populations d'Oiseaux du Québec (EPOC) or Study of the populations of the birds of Quebec is an interesting long term study that has utilized checklists maintained by lay-birders for their areas. This study has made use of data that has been collected since 45 years. Guidelines have been prepared to encourage new programs to collect data in the most scientifically valuable manner. Analysis of checklist data suggests that such programs contain useful information on changes in bird population status and may serve as an early warning of negative trends. The Canadians have compared this approach with the more expensive approach used by the U.S. BBS described below.

The North American Breeding Bird Survey(BBS) was started in the 1960s amd was formally launched in 1966. These are far more resource expensive than the Canadian program and makes use of selected and

trained volunteers who travel along selected routes (travel expenses covered(?) by the US govt.) Breeding Bird Surveys are conducted during the peak of the nesting season, primarily during June, although surveys in desert regions and some southern states are conducted in May. Each route is 24.5 miles long, with a total of fifty stops located at 0.5 mile intervals along the route. A three-minute point count is conducted at each stop, during which the observer records all birds heard or seen within 0.25 mile of the stop. The BBS was designed to provide a continent-wide perspective of population changes. To achieve this perspective, the routes are randomly located in order to sample habitats that are representative of the entire region. Other requirements such as consistent methodology and observer expertise, visiting the same stops each year, and conducting surveys under suitable weather conditions are needed to produce comparable data over time. A large sample of routes is needed to average local variations and reduce the effects of sampling error. The BBS data are very challenging to analyze. The survey produces an index of relative abundance rather than a complete count of breeding bird populations. The data analyses assume that fluctuations in these indices of abundance are representative of the population as a whole.

- Shyamal

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EPOC page http://www.geocities.com/oiseauxquebec/cbcp_i_e.html

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Dunn, Erica (?) Recommended Methods for Regional Checklist Programs (http://www.rsl.psw.fs.fed.us/pif/ext_prot.html)