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Newsletter for Ornithologists now re-launched as *Indian Birds*

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The Northern India Bird Network: http://www.delhibird.com/

Zoological Nomenclature Resource: http://www.zoonomen.net/ N.C.L. Centre for Biodiversity Informatics: http://www.ncbi.org.in/biota/ fauna/

John Penhallurick's Bird Data Project: http://worldbirdinfo.net/ Saving Asia's threatened birds:

http://www.birdlife.net/action/science/species/asia_strategy/pdfs.html/ Optics: http://www.betterviewdesired.com/

Library

- Ali, Salim, 2002. *The book of Indian birds*. 13th revised edition. Mumbai: Bombay Natural History Society.
- Ali, Salim & S. Dillon Ripley, 2001. Handbook of the birds of India and Pakistan, together with those of Bangladesh, Nepal, Bhutan and Sri Lanka. 10 vols. New Delhi: Oxford University Press.

Grimmett, Richard, Carol Inskipp and Tim Inskipp, 1998. Birds of the Indian subcontinent. London: Christopher Helm.

- Harrison, John, 1999. A field guide to the birds of Sri Lanka. Oxford: Oxford University Press.
- Inskipp, Carol & Tim Inskipp, 1985. A guide to the birds of Nepal. London: Croom Helm.
- Inskipp, Carol, Tim Inskipp & Richard Grimmett, 1999. *Birds of Bhutan*. New Delhi: Oxford University Press.
- Kazmierczak, Krys, 2000. A field guide to the birds of India, Sri Lanka, Pakistan, Nepal, Bhutan, Bangladesh and the Maldives. New Delhi: Om Book Service.
- Roberts, T. J. 1991-92. *The birds of Pakistan*. 2 vols. Karachi: Oxford University Press.
- Robson, Craig, 2000. *A field guide to the birds of South-East Asia*. London: New Holland.

English and scientific bird names used in Indian Birds follow

Manakadan, R. & A. Pittie. 2003. Standardised common and scientific names of the birds of the Indian Subcontinent. *Newsletter for Birdwatchers* 42 (3): i-viii, 1-36.

Guidelines to contributors of Indian Birds

Indian Birds publishes original articles and notes about birds and birdwatching with an emphasis on South Asian birds (South Asia: Afghanistan, Bangladesh, Bhutan, India, the Maldives, Myanmar, Nepal, Pakistan and Sri Lanka). We welcome articles on behaviour, ecology and conservation, counts and censuses (particularly those covering multiple years), annotated checklists, trip reports, book reviews, reviews of audio recordings, letters, announcements, notices, news from the birding world, etc. Authors proposing reviews of published material should first discuss this with the editor. All manuscripts should be easy to read and understand. Manuscripts will be edited for length, content and style, and will be sent to referees when appropriate. The Editor will discuss contributions with authors and advise on modifications. Some basic guidelines are given below:

General When a bird species is first mentioned, both the English and scientific name must be given, thereafter the English name only. English and scientific names should follow Manakadan, R., and Pittie, A. 2001. Standardised common and scientific names of the birds of the Indian Subcontinent. *Buceros* 6 (1): i-ix, 1-38. Metric units and their international symbols must be used; dates and times should be of the form 1.i.2005 and 13:45hrs respectively. Numbers one to ten should be written in full, except when used with a measurement abbreviation or higher number, thus: five birds, but 5km and 5-15 birds. Numerals are used for all numbers greater than ten: 12, 120, 1,200 and 12,000.

Preparation and submission of manuscripts These should preferably be sent electronically as an email attachment or mailed on a PC-formatted floppy disk or CD-ROM to the contact addresses given below. The text, tables, figure legends (which must be self-explanatory) and appendices should be combined in one MS Word file. Alternatively, hard copies of typescripts, original maps and diagrams can be sent by mail, but this should be an option of last resort.

Images Photographs, artwork, maps, diagrams, etc. should be digitised and sent either as an email attachment or on CD-ROM. These should be in TIFF and at least 8"x11" in 300dpi resolution. JPEG files must be "maximum" quality, that is, at their minimum compression. Maps should be marked with a scale and north arrow.

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Aims & Objectives

• To publish a newsletter that will provide a platform to birdwatchers for publishing notes and observations primarily on birds of South Asia.

• To promote awareness of bird watching amongst the general public.

• To establish and maintain links/liaison with other associations or organized bodies in India or abroad whose objectives are in keeping with the objectives of the Trust (i.e. to support amateur birdwatchers with cash / kind for projects in ornithology).



Indian Birds

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Front Cover Picture: Ibisbill *Ibidorhyncha struthersii*, June 1995, Indus River near Shey / Ladakh, India (3,300m).

Back Cover Picture: White-throated Dipper *Cinclus cinclus*, rare '*sordidus*' morph. June 2004, Sumdo brook, Rupshu / Ladakh, India (4,250m).

Photographer: Otto Pfister.

Editorial

The latest book on Indian birds is Birds f South Asia: The Ripley guide, a twinvolume set authored by Pamela C. Rasmussen and John C. Anderton-the culmination of several years' work. It deals with the birds of Afghanistan, Pakistan, India, Nepal, Bhutan, Burma (Myanmar), Bangladesh, Sri Lanka, Maldives and the Chagos Archipelago. While bouquets, brickbats and reviews will follow in the months to come (the Internet's mailing lists are already buzzing), what should concern us immediately is the fact that this work proposes well over 100 splits within the region, besides several other changes in the avian taxonomy of South Asia. This means that there are now more 'good' species, as taxonomists like to call them, more unique life-forms, within the geographical limits of this region. Species being indicators of biodiversity, this also means that our conservation efforts have to be redoubled, for these 'additional' species will give rise to their own categories of abundance or, rarity, e.g., Endangered, Critical, etc., and then there is the special responsibility we have towards endemics. This might also add some new Important Bird Areas to the list already drawn up by Islam et al. (2004). Whether one accepts the taxonomic changes or not, it would do us all good to look more closely at all birds and try and understand their relationships with each other better.

This issue of *Indian Birds* carries an exclusive article by Pamela Rasmussen, the lead author of the *Birds of South Asia* on how she wrote the book. Otto Pfister, author of *Birds and mammals of Ladakh* writes on a recent trip to that forbidding land and

Anand Prasad updates the distribution records of some species in the Pune area (Maharashtra).

Our website, <u>www.indianbirds.in</u> is now functional. All issues of the precursor of *Indian Birds*, "Newsletter for Ornithologists", have been placed on it and can be viewed / downloaded. The first issue of *Indian Birds* is also available for viewing / downloading. In future we intend to upload entire issues only when they are at least 12 months old. Visitors will be able to see the "contents" of every issue and one or two papers from each will be fully accessible as samples.

Subscribers, who wish to receive their copies as attachments to email, whether due to considerations of space or in support of a "Green" world, should write to me specifying so. - Aasheesh Pittie

On producing Birds of South Asia

Pamela C. Rasmussen

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When asked by Aasheesh Pittie if I would write an account of my experiences in preparing *Birds of South Asia: the Ripley Guide* (Rasmussen and Anderton 2005), the idea appealed to me immediately. I felt this would provide a very different forum than the introduction to the book, in which space was at a premium and only the most important information could be included. The following is not intended to be complete, but it should provide a picture of the process. Here a caveat is in order—this is by no means a "how-to" article!

Even as a kid, I had always been interested in birds and bird books. After finishing my Ph.D., I began working for S. Dillon Ripley at the Smithsonian Institution (National Museum of Natural History, USNM), and I was excited by the idea of participating in the preparation of a field guide to the Indian Subcontinent, even though I had never yet been to Asia. Of course, for obvious reasons writers of field guides usually have years of experience in the areas they are covering, so I was determined to make up for this deficit by doing as much fieldwork as possible in southern Asia. The book project was the idea of my predecessor, Dr Bruce Beehler, in collaboration with Dr Ripley, and Bruce had already made the necessary arrangements to get the project off the ground, which

included hiring John Anderton as art director and principal illustrator. Dr Ripley was to be the first author of the book, with any other authors to be determined. But then Bruce moved on to another job, and I was hired as his replacement. By the time I was hired, Bruce and John had realized that illustrating all the birds of the region was such a huge job that they had contracted additional artists, including Cynthia House, Thomas Schultz, Albert Gilbert, Jonathan Alderfer, and N. John Schmitt. For his part, John Anderton had already spent several months in most of the hotspots of the Indian Subcontinent, including Sikkim, Nepal, Sri Lanka, and the Western Ghats. John spent every day in the field observing and sketching birds, and John's highly evocative field sketches truly captured the essence of each species in a minimum of pen strokes (yes, pen, not pencil!). By the time I started, John had completed several plates, and Al Gilbert had finished all his, so I could already see it was going to be a great book. Although this was John Anderton's first book project, he is a natural, fluent artist. To start with, I had the idea that putting the text together would be mostly compilation-I remember telling people that the hard part would be getting the plates done, and the rest would be no problem. We had an ever-changing cast of volunteers working on a database of relevant entries from other field guides that we would then use to compile the text. Bharat Bhushan worked on producing an early version of the facing page notes. Soon, however, it became evident that there was massive disagreement among sources in a great many cases, so this approach seemed more and more problematic and much less than scientific, since it seemed impossible to know which source was correct in cases of conflict.

From the start, Dr Ripley's health was poor; sometimes he could make it into the office but he could only spend short periods there. After about my first year on the job, he suffered what was to be his terminal decline in health, which ultimately led to his being unable to participate in the project. This very unfortunate state of affairs meant that we were not able to benefit much from his years of field experience, and doubtless the project would have turned out very differently and been completed much more efficiently had things been otherwise in this respect. Continuing funding from his office, however, made it possible to carry on the work, which would otherwise have been completely impossible. The book was in its late stages when Dr Ripley passed away,

and he was never able to participate in its production, so the subtitle bears his name (by agreement between the Smithsonian and Ripley's surviving family) instead of him being an author.

Early on in the project, I came to the conclusion that there were problems with the original design-for instance, vagrants were excluded, and the Andamans and Nicobars were not covered. Also, as I began to understand variation among birds of the Indian Subcontinent, the more I realized that many more plumages and races would need to be illustrated than had been planned, making the number of planned plates inadequate. Additionally, we learned that a field guide to the region was under production by another team, Richard Grimmett and Tim and Carol Inskipp. Early negotiations to try and combine the two projects failed because a lot of effort (including plates) had already been duplicated, and anyway our publisher (at that time) was convinced that there was room in the market for two guides to the region. Especially given the competition, I felt that a key to success would be to produce a comprehensive and accurate guide to the region. I also decided that we should include Afghanistan in the book's coverage, because it shares many of the Indian Subcontinent's taxa and because it was not covered by any previous field guide. So we proceeded in planning and review of plates, although the pace of plate production was painfully slow due largely to the fact that some of the artists were still busy with other projects.

As I reviewed plates, I was hampered by the extreme scarcity of reliable reference material, particularly photographs for the birds of the region, even the most common ones. This led me to start a regional bird photo file, of color xeroxes, clippings, photos sent by collaborators, specimen photos, etc. which soon became really extensive and then unmanageably large. For each plate, I would assemble all relevant photographs (this was in the dim days before the digital revolution, when color xeroxes were state-of-the-art) and send them to the artist, and then I would again use the photos and specimens to review the accuracy of each plate. Also, for a while Guy Tudor helpfully sent photos to the artists from his huge collection, until my file became complete enough. Eventually I couldn't keep up with filing the new photo acquisitions so I assigned this to a volunteer

retiree, Ted Rivinus, but not long after that Ted was tragically killed in a car crash. Now, of course, good numbers of photos of most species are readily available digitally and can just be Googled, but this was unheard of in the early to mid-1990s. Later in the project, I realized that I needed a comprehensive and accessible digital photo collection of specimens for purposes of checking text and plates, so whenever I worked on specimens I photographed them as well.

From the start of the project the illustrations of nearly all plumages had been based on specimens. First, we inventoried relevant specimens in the collection of the National Museum of Natural History (justifiably, we couldn't borrow unique material or more than half of the holdings of any taxon or sex). During this process we made decisions about which plumages and races needed illustration, but it wasn't long before it became obvious that, for the sake of completeness, much work would have to be done at other museums. At the USNM we assembled specimen loans as needed, which were processed by divisional staff and sent off to the artists, each of whom had pest-proof specimen storage facilities. But it seemed that just as a plate was completed, I would find specimens (at some other museum that we had been unaware of) that had important racial/age/sex distinctions and that more illustrations were really needed for completeness. However, this was well before large-scale digital recomposition was feasible, and so we often had the artists insert additional figures into spaces between birds, but in many cases this was impossible. In a few cases this resulted in the repainting of a plate to accommodate many more figures. Eventually we convinced the press to allow us to have more (104) color plates, and we planned some black-and-white plates in addition. All this of course meant more planning and more contract paperwork. It's amazing how much work it is just to do this kind of background work on plates, even if you aren't the artist! Of course the artists have much the hardest job to do, and that which requires great skill, knowledge and inspiration.

Early in the project we were limited to having black-and-white maps that would be grouped in the back of the book. Of course we realized that this was not optimal, but publication costs meant it was the only way. We had a great deal of trouble coming up with black-and-white patterns that appeared sufficiently distinct from one another and that would hold up in publication of maps only about an inch square, and we never did find a really satisfactory solution. We also had huge problems constructing the maps, as we didn't then have a proper database of bird localities, nor yet a working knowledge of many of the geographic names. We were in the tedious process of preparing a database from literature localities, but we had no way of verifying the accuracy of many of these, and then (mercifully, I now believe) the whole database was lost while I was on my second trip to Myanmar. The database hadn't been backed up for a long time and I couldn't see redoing it, since I had little faith in many of the records anyway. Brian McPhelim spent much time producing base maps, which were then computerized in Adobe Illustrator, which at that time was very far from a userfriendly program. Later we decided that a professional map artist was needed, so we contract Britt Griswold for this huge job.

A few years into the project, it became clear that we had to speed up plate production, and we had the very good fortune to be able to enlist the services of Ian Lewington, Hilary Burn, and Larry McQueen, among others. These artists, widely recognized as among the best bird artists in the world, lived up to their billing in their work for us. All have very different styles but all are able to produce beautiful, accurate work, even for birds they haven't seen in the field. It also became clear that the advice of experts was needed for particularly difficult groups, and so we enlisted the services of (among others) William Clark for raptors, Per Alström for warblers, larks and motacillids, and Craig Robson for babblers.

As opportunities arose, I began to do more work at other museums, particularly the American Museum of Natural History, The Natural History Museum in Tring, UK (BMNH); the Field Museum of Natural History (FMNH); the University of Michigan Museum of Zoology (UMMZ); Yale Peabody Museum; the Bombay Natural History Society (BNHS); and others with substantial Indian Subcontinent bird specimen holdings. To fill in gaps we ended up borrowing a great many specimens from other museums, which helped immensely. In addition, the more time I spent at BMNH the more I realized how essential work in this collection would be in doing an

adequate job with the book. This is due not only to the huge Indian Subcontinent collection at BMNH, with material of almost all taxa from nearly all areas, but also to the fact that many of the type specimens, much important published material, and many archival and obscure library resources are lodged there.

One day, Nigel Collar was visiting Washington DC and was working in the bird collection. I had recently read Alan Knox's (1993) paper in which he alleged that the collector Col. Richard famous Meinertzhagen had stolen redpoll Acanthis specimens and relabelled them with false data. This bothered me greatly because I had noticed that quite a few species and strongly marked subspecies were recorded from the region only on the basis of Meinertzhagen's specimens. So I just happened to mention to Nigel that I was concerned about the Meinertzhagen records, and needed to decide whether I should have these taxa illustrated or not. To my surprise, Nigel said that indeed he was on a committee formed by the British Ornithologists' Union to evaluate the veracity of Meinertzhagen's specimens, as this matter was of great concern due to the size and importance of his collection at The Natural History Museum. He also said that I should contact the other committee member, Dr Robert Prys-Jones, Head of the Bird Group at the BMNH, in advance of my upcoming trip there so we could try to evaluate the relevant Indian bird specimens. I did so, and on that trip Robert and I were able to establish (by finding preparation style matches to series collected by earlier workers from which specimens were missing) that several of Meinertzhagen's unique subcontinent records were clearly fraudulent, and all the others were highly suspect. When I returned to the USNM, Dr Storrs Olson asked me a question about the Forest Owlet, Athene blewitti, so I turned to the Handbook of the birds of India and Pakistan (Ali and Ripley 1983) and read, to my dawning horror, that it had last been recorded in 1914 in Gujarat by Meinertzhagen! This suspicious circumstance immediately led to a comprehensive investigation that resulted in the confirmation that Meinertzhagen's specimen was fraudulent (Rasmussen and Collar 1999), that the species hadn't been definitely reported since 1884 (Rasmussen and Collar 1998), and finally in our rediscovery of the owlet (King and

Rasmussen 1998).

Thus began a massive project with Robert to ground-truth the Asian bird collection of Richard Meinertzhagen. This work could only be done in the collection of the BMNH, and it kept expanding as we realized more and more the scope and importance of the frauds. Not only did we find that a great many (probably thousands) of Meinertzhagen's specimens are stolen and fraudulently labeled, but we continued to locate important regional records, such as the only winter regional records, the only breeding records, the only Afghan records, the highest elevation records, odd food and behavioral records, etc. for certain taxa. For example, Meinertzhagen's collection contained the only specimens of Coralbilled Scimitar-babbler Pomatorhinus ferruginosus from above 2400m, and these were labeled as being from 3500 and 3800m in November! He had a specimen of Kashmir Flycatcher Ficedula subrubra from Uttaranchal in June, when all members of the species should be in and around Kashmir. He had the only Himalayan winter records of Ferruginous Flycatcher Muscicapa ferruginea and Large Blue Flycatcher Cyornis magnirostris; after discounting his specimens, it became clear that these species both vacate the region in winter. On examination, almost all of these pivotal records turned out to be fraudulent (Rasmussen and Anderton 2005; Rasmussen and Prys-Jones MS), as did many mundane, unimportant specimens as well. Conversely, we found that some of Meinertzhagen's very important specimens are almost certainly genuine, such as his type series of Afghan Snowfinch Pyrgilauda theresae (Rasmussen and Prys-Jones 2003). Over the intervening years we have been able to evaluate practically all Meinertzhagen's significant Indian Subcontinent regional specimens of which we are aware, so that Birds of South Asia should be relatively free of the negative influence of Meinertzhagen's frauds, although for transparency his name appears in the book in connection with each of his dubious records. Each of the important records is dealt with in detail in a forthcoming scientific analysis (Rasmussen and Prys-Jones MS).

It was while I was looking through the Smithsonian archives for information on any dealings Meinertzhagen may have had with the Smithsonian (which seems to have been very little) that I "discovered" a set of some 14 or so boxes which contained files from the preparation of the Handbook. These turned out to be the mother lode of distributional and other information that had formed the backbone of the Handbook, augmented by more recent material as well. They were the archived scrapbooks and point maps of the late Hugh Whistler and Claude Ticehurst, who had been the acknowledged experts on Indian Subcontinent birds before their premature deaths one year apart in the early 1940s. They had been preparing a major work together on the region's birds, which was still a long way from completion, but they had at least gathered the existing references together and created maps for most species (except waterbirds, birds of Sri Lanka, and those of the Andamans and Nicobars). The boxes had been archived long before, so I had not known of their existence. Anyway, it was immediately obvious that these boxes contained the material that would allow us to produce good maps, and to track references on many other details of species' life histories, etc. By this time I had lost faith in many recent records because of the lack of verifiability and traceability, and it seemed to me that the older literature (once one got the hang of the old names) was more verifiable because the writers usually had specimens, often held at the BMNH, to back up their claims. So I arranged to have all the contents of the boxes xeroxed, a huge job carried out by Brian McPhelim, and I then organized them all taxonomically. These were then heavily used in preparing the texts and maps, although of course they carry some risk of error and misinterpretation, and they are undeniably dated. For example, the points on the map were based on literature reports, some of which were not backed up by specimens, but those that were had often been verified by Ticehurst and/or Whistler. Each map point was keyed to reference, which was exceedingly helpful, and many strongly marked taxa (e.g. "phylogenetic species") such as identifiable wagtail taxa had their own map, which made it possible for us to provide separate maps for them. Later I learned that the originals of these references are archived at the BMNH, and another set of copies is at the BNHS. In addition, I happened to locate a map archived at BMNH that pinpointed the old collecting localities, many of which had obsolete names that had given us considerable trouble, and this proved extremely useful.

However, I still didn't have a database that could be used to refine the maps, or to check individual records. I did have printouts of regional holdings of bird specimens for the museums whose collections were computerized, but these were hard to use in any comprehensive, organized way due to their being separate and in different formats, etc. I thought that a complete specimen database would be far too much work, but I decided anyway to at least put these museum records into a database, which would help enormously. I then realized that databasing wasn't nearly as hard or time-consuming as I had expected, and this led to a major effort to create as comprehensive a specimen database as possible. I visited museums that hadn't been computerized and (with permission) made xeroxes or took digital photos of relevant portions of specimen registers, which were then input into the database; for example, volunteer Helen Melichar entered all the many thousands of Ticehurst and Whistler BMNH specimens into the database. Other volunteers did other parts: Dhananjhaya Katju computerized the specimens in the published BNHS catalogues, while Linda Lyon added in material from some published trip reports, and I spent many evenings adding in other collections. Thus, I ended up with a mostly complete regional database comprising some 230,000 specimens.

The very first time I actually used it to check maps, the database gave me a good idea how essential it would turn out to be: I was checking maps of laughingthrushes, when I found that although the Striated Laughingthrush Grammatoptila (Garrulax) striata was said to occur in, and was mapped for, parts of the hills south of the Brahmaputra River, not a single specimen from any part of that area was in the database. Now, if this was a skulking bird, or one that was difficult to identify, that might not have been so telling. But believe me, if this bird is in an area any field ornithologist would know it, and it would surely be well-represented in the extensive, mostly unpublished collections from the South Assam hills, which had been especially well-collected by Dr Walter Koelz, all of whose material was by then in my database. Further checking showed that, indeed, the only records of G. striata south of the Himalayas and in the Chin Hills of Myanmar were erroneous or at best unverified. This presaged what turned out to be a common pattern: once all the

specimen records from the seemingly poorly known South Assam hills were organized in the database and analyzed, the area actually became rather well-known, but as this had never been done, major distributional errors were rife for this region. Other species whose north-eastern Indian ranges were elucidated by the database include Tickell's Blue Flycatcher *Cyornis tickelliae*, Large Blue Flycatcher *Cyornis magnirostris*, White-browed Fantail *Rhipidura aureola*, Thick-billed Flowerpecker *Dicaeum agile*, and Collared Treepie *Dendrocitta frontalis*.

When Lynx Edicions agreed to publish our book, they also (thankfully!) agreed that the maps should be in colour. This was a huge improvement, but as most of the maps had already been digitized in black-andwhite by Britt Griswold, a great deal of further work had to be done to enact the changes. It also allowed me to devise what I hope are useful, user-friendly ways of annotating the maps to summarize geographic variation, status, and habitat, among other things. Although this was enacted before it was decided to split the book into two volumes, the annotations had the further benefit of making the field guide section (with the maps) stand alone better than without the annotations.

Special difficulties occur with map-making where taxonomic histories are complex, and/ or where identification difficulties occur. In these cases, one cannot be certain that even museum specimens in databases are correctly identified unless one checks them oneself, of course armed in advance with knowledge of how to do so! This was particularly the case with leaf-warblers Phylloscopus, reed-warblers Acrocephalus, and most of all with bush-warblers Bradypterus. For the latter group I ended up spending countless hours on side projects that (with co-authors) eventually elucidated their formerly muddled distributions. For these small birds, specimen series are usually sufficient to produce good small-scale maps, but this is certainly not the case for many large birds, notably vultures, adjutant storks, pelicans, and cranes. Not only do very few specimens exist of these, but the species tend to have complex plumage sequences and to be easily confounded in the field, particularly in the days before good optics and field guides. Thus, the vast majority of sight records of the above groups cannot really be trusted, but there are by no means enough specimens to begin to produce a map based entirely on verified specimens, and I have little confidence in the details of maps for these taxa. Even worse is the appalling situation with seabirds; for most of these, identification is ultra-difficult and few if any regional specimens are available. Fortunately, for raptors (notoriously difficult to identify, with many look-alike, highly variable regional species) I was able to enlist the aid of a raptor expert, Dr Steven Parry, to review all identifications at the BMNH, which helped greatly in being able to confidently produce specimen-based maps.

Due to the nature of scientific knowledge, accuracy of the maps varies from region to region. For example, bird distributions were already relatively well-known in Sri Lanka, and I sent all the draft maps for that country to Sri Lankan experts Deepal Warakagoda and Udaya Sirivardena, who made many useful comments that resulted in a great increase in their accuracy, and in their being up-to-date. At the other extreme, reliable historical baseline data are almost lacking from Bangladesh, an area largely overlooked ornithologically during the colonial period and since. The published record for Bangladesh is highly speculative. Few specimens were ever collected, and even the location of many of those is uncertain. Conversely, an important fairly recent collection (by Dr R. A. Paynter, Jr.) was never published (until I incorporated it into Birds of South Asia). Recent papers by in-country observers have greatly improved the situation, but still the Bangladesh maps were extremely troublesome to prepare with confidence. The situation is similar in Arunachal Pradesh, where recent observers have published many important sight records from areas never properly documented by specimen collectors. However, for the book I took the stance that sight records not accompanied by independently verifiable data (e.g. photographs, tape recordings, and/or publication of diagnostic field details) should not be treated as definitive.

And Afghanistan—well, this country proved the most troublesome of all. No previous work had included high-quality maps for Afghanistan. The best works on its avifauna were by Whistler (1944-1945), based on the early material collected by British surveyors and explorers, and Paludan (1959), based on his field work there. Maps in Hüe and Etchecopar (1970) and especially Harrison (1982) were clearly somewhat speculative and outdated. With a few exceptions, Koelz's very extensive Afghan collections had never been incorporated into the literature. Most of the fairly recent literature on Afghan birds is in languages other than English, and the vast majority consist of uncorroborated lists of species seen. Although in theory my specimen database made it possible to create the first good maps for Afghanistan, I had a great deal of difficulty finding coordinates for Koelz's localities. It was only shortly before the manuscript had to be delivered to the press that I learned (from Mary LeCroy at AMNH) that an unpublished map existed with Koelz's Afghan localities, and, with the help of Dr Thomas Schulenberg, I finally tracked it down at the FMNH. This proved invaluable in producing the Afghan maps, although mapping species that occur there was more time-consuming than for any other country in the region.

Another major trouble spot for mapping was the Andamans and Nicobars, which I've always found very interesting. But trying to map bird occurrence in these islands without considerable original research was highly unsatisfactory. Although Humayun Abdulali published important papers on the Andamans and Nicobars, many contradictions and questions remained. Not only was it difficult to discern on which islands each species had been correctly reported, it was often difficult to tell whether there were any valid records at all for the whole island group. My specimen database helped immensely, but the biggest collections from the Andamans and Nicobars were at the BMNH, and these hadn't been worked up by Ticehurst and Whistler to the point that the data were usable. To overcome this problem, late in the project I contracted Steven Parry to database all the Andaman and Nicobar specimens in the BMNH. Once this was done, it meant that I had virtually all the specimens from these islands in my database (although I later realized there are a few in Leiden), so I could produce a more coherent picture of their distributions. Quite a few species previously listed turned out to require better documentation for the islands (among others, Grey Heron Ardea cinerea; Black-crowned Night Heron Nycticorax nycticorax; Black Bittern Dupetor flavicollis; Common Teal Anas crecca, Brahminy Kite Haliastur indus; Common Kestrel Falco tinnunculus; Small Cuckoo Cuculus poliocephalus). Many taxonomic riddles surfaced. For example, is the Black Baza Aviceda leuphotes an occasional migrant through the Andamans, or is the species resident and the race andamanica valid? Similar questions had to be asked of the Ruddy Kingfisher Halcyon coromanda mizorhina and the House Swallow Hirundo tahitica, among others. The serpent-eagles Spilornis, the accipiters Accipiter, and the hawk-owls Ninox were particularly intriguing and troublesome in terms of sorting out both distribution and taxonomy.

When I went to the Andamans in the early 1990s, I saw most of the endemic species but I didn't appreciate then how really distinctive the avifauna is-many of the splits proposed in the book are from the Andamans or Nicobars. My preconception was that the avifaunas of these two island groups were relatively similar to each other, but the research for this book shows that few species and even fewer races are actually shared between the Andamans and Nicobars. For example, for species definitely known from the Andamans, several cases arose where this proved not to be the case for the Nicobars (e.g. Hume's Hawk-owl Ninox obscura, Indian Cuckoo C. micropterus, Asian Emerald Cuckoo Chrysococcyx maculatus, Violet Cuckoo C. xanthorhynchus, Ruddy Kingfisher, Whitethroated Kingfisher Halcyon smyrnensis, Asian Fairy-bluebird Irena puella), and vice versa (e.g. Pied Triller Lalage nigra, Nicobar Jungle-flycatcher Rhinomyias nicobaricus). But more importantly, in several cases races treated as synonymous proved upon reexamination to be valid (e.g. Andaman Woodpigeon Columba palumboides nicobarica, Emerald Dove Chalcophaps indica augusta, Andaman Green-pigeon Treron chloropterus andamanicus, just to mention the examples among the Columbidae). Much remains to be learned of the avifauna of these islands.

After my move to Michigan State University, I was able to regularly use the Indian and Nepal collection there, and to take advantage of its proximity to the UMMZ, just an hour away in Ann Arbor. The MSU collection holds several regionally important specimens, including at least two vouchers of important records (a specimen published as Lanceolated Warbler *Locustella lanceolata* from Delhi turned out to be the far more common Grasshopper Warbler *L. naevia*, and a Common Sandmartin *Riparia riparia* that may be the only voucher between Afghanistan and northeastern India). In UMMZ, a treasure trove awaited-the huge Koelz collection from north-eastern India, along with substantial holdings from many other areas of the subcontinent, little of which had been published. There (unlike any other collection) I was able to make direct comparisons for many taxa between extensive series from Assam Valley, the Naga Hills, Manipur, Meghalaya, and the Lushai hills, as well as the Himalayas and central India. It turns out that Koelz was the only person to ever make a bird collection in the Lushai Hills of eastern Mizoram, which abut onto the Chin Hills of western Myanmar and the Chittagong hill-tracts of southeastern Bangladesh. This fact alone meant that I was able to discern several new races for the Indian Subcontinent from the Lushai Hills, most of them mainly distributed in the Chin Hills and Arakan of Burma (for example, race victoriae of Brown-capped Laughingthrush Ianthocincla austeni; race mearsi of White-browed Scimitar-babbler Pomatorhinus schisticeps; race victoriae of Green-tailed Sunbird Aethopyga nipalensis; race flavescens of Fire-tailed Sunbird Aethopyga ignicauda; race victoriae of Brown Bullfinch Pyrrhula nipalensis), and to clarify a great many other matters. But most surprising was the fact that in the UMMZ collection, by scrutinizing large series of common species, I located previously unrecognized regional specimens of three species of Phylloscopus warblers (Chinese Leaf-warbler Phylloscopus yunnanensis; Buff-throated Leaf-warbler P. subaffinis; and Two-barred Warbler P. plumbeitarsus). No regional specimens of these taxa have been located in any other collection, and I have searched in vain for all these and more at several other museums.

These three leaf-warblers were not the only species new to or overlooked for the region for which specimens were located during the course of preparing the book. Others include Hill Blue Flycatcher Cyornis banyumas (which I consider to be a separate species from C. magnirostris): I happened to find specimens labeled as C. b. whitei in the Rothschild Collection of the AMNH, which had not been incorporated into the literature. I have no doubt that they were correctly identified, and they actually explained odd winter records of C. banyumas from the NE that had been attributed to C. magnirostris, which migrates to Malaysia for the winter. Another

was Grey-bellied Wren-babbler Spelaeornis reptatus (formerly treated as a race of S. chocolatinus); John Anderton had had difficulty in reconciling a Namdapha specimen in the USNM collection with others he had seen and illustrated, and when I compared the specimen at the AMNH it was clear that it was actually reptatus, previously known from as close as northern Myanmar. Yet another was Hill Prinia Prinia superciliaris (previously treated as a race of Blackthroated Prinia P. atrogularis); in this case, I had received tapes from Namdapha of what was identified as P. atrogularis, but it matched superciliaris from south-east Asia instead. The tapes lacked sufficient accompanying visual identification details to be certain that they really were of superciliaris. However, after the book text had already been submitted to the publisher, I happened to find a specimen of superciliaris at the BMNH labeled as being from the E. Naga Hills (within India, according to the collector's itinerary); this specimen (collected by Godwin-Austen) had been in the collection for almost 110 years before its true identity and significance were recognized! Finally, there had been unverified sight records of Black Noddy Anous minutus from Sri Lanka, but most sources indicated the species does not occur in the Indian Ocean, where it is replaced by Lesser Noddy A. tenuirostris. However, there are specimens in the BMNH that clearly are minutus and are definitely from the Indian Ocean, including within the Indian Subcontinent.

Another major problem I encountered was that no hypothetical list existed for the Indian Subcontinent. Species had either been accepted or rejected, often without explicit published documentation. In most cases it seemed that a liberal policy had been adopted which is not in keeping with standards of proof for other countries, or scientifically defensible. After much worry and debate. I decided that a relatively rigorous and consistent stance was needed, although I knew that this could alienate many people. The standard I adopted was that a species given full regional status had to be documented by a specimen for which there was no reason to doubt provenance or genuinely wild status, or an identifiable photograph, or at least the publication of diagnostic details that could be independently evaluated. A surprising number of species did not conform to these standards, and therefore were placed on the hypothetical list. Of these, quite a few will probably be found to have been validly reported, while others are quite unlikely. I also created a list of rejected species, those for which the evidence overwhelming indicated that they had been recorded incorrectly or fraudulently.

From the beginning I had felt uneasy about using published length measurements in the book, although I realized that users would definitely expect them. My disquiet was due to the fact that many contradictions exist in the literature, and with most published measurements one cannot know where they came from, how the measurements were taken, or sometimes even which taxon was actually measured. I was essentially resigned to using the measurements from the Handbook, and indeed we did use them for purposes of quick cross-comparisons in Volume 1 of our book, the Field Guide. But eventually I decided to try to come up with skin measurements that would be relatively repeatable and consistent, and also helpful in the field, and I ended up with what I hope will succeed in these respects. However, it took months of work to be able to take all these measurements from series of all major taxa in the region. Although I tried to do most of it at the USNM, the collections of the BMNH ended up being by far the most useful for taking measurements because they are so extensive. Even so, it was often impossible to achieve my goal of five accurately sexed specimens of each sex for each major taxon, especially for larger birds. I had to exclude many specimens due to preparation style-for instance, birds with stretched or squashed necks could not be measured for total length, birds with the back of the skull removed (easily detected by palpation) could not be measured for head plus bill length, etc. Incidentally, the whole process of measuring all these birds brought into focus something I had never realized: for the vast majority of Asian passerines, males are distinctly larger than females in all major dimensions *except* for head plus bill length. This is one of many findings stemming from the book project that needs scientific follow-up, and I hope soon to be able to look into big pattern issues such as regional and taxonomic patterns of sexual dimorphism, geographic variation, and vocalizations, among other things.

Another major aspect of the book about which I had serious misgivings from early

on was the descriptions of vocalizations. Clearly those that existed were from a variety of sources, many untraceable, and most were not directly comparable or necessarily very accurate or complete. To make matters worse, I have always had a severe upper register hearing loss, so I felt that even had tapes been available of most taxa, I wouldn't be able to describe them myself. Early in the project I had planned to present sonagrams for some species with strongly patterned vocalizations, but the difficulty and expense of preparing sonagrams at that time had discouraged me from following through on this goal. However, late in the project it became clear that recordings of many species were becoming available, at about the same time that user-friendly sonagram software became readily available and computer storage space made it feasible to deal with large numbers of recordings. After some experimentation, I realized that this was the answer: I could now easily digitize recordings, make sonagrams from them, and see whatever high portions I couldn't hear! Much trial and error later, I eventually came up with a way of transcribing vocalizations and providing quantitative data that should allow users to more accurately and consistently identify and compare vocalizations, and I was able to implement this system for the vast majority of species. This would not have been remotely possible without the huge contributions from the sound collections of several recordists, most notably Paul Holt, Craig Robson, Per Alström, and Deepal Warakagoda, to all of whom I am extremely grateful. In addition, the publishers agreed with me that sonagrams would be a very useful innovation, and I was able to produce sonagrams of the main vocalizations for over half the region's species. Unfortunately, constraints on my time and the book's length severely limited this feature, so for example there are no sonagrams for the chats, or for the finches, among other groups, but they are included for most of the highly vocal groups.

From early on in the project we were aware of numerous problem taxa—cases where it seemed even to the casual observer that the taxonomy was flawed. I had long subscribed to the widely held view that we should not make taxonomic changes in a field guide, but when it became clear that I would be able to include sufficient morphological data, detailed vocal comparisons, sonagrams, and taxonomic notes for relevant cases, I decided that the book was indeed an appropriate place to make the best-justified changes. They would thus be enacted in a single place, rather than having to wait years in the hope that various isolated publications would appear (or not) in disparate sources. Of course the split taxa should be more fully treated in refereed journals, and qualified regional committees should take decisions on them. The splits taken in the book are those for which the evidence was strongest; there are numerous others that may, upon further study, prove to be justified. On the whole, the splits revise the number of endemic species upward for the Western Ghats, Peninsular India, Sri Lanka, the Andamans, and the Nicobars, with very little impact elsewhere. A paper summarizing this aspect is forthcoming (Rasmussen in press).

Mr Ripley died on 12 March 2001 at age 87. By that time the vast bulk of the project was completed, including nearly all the plates. However, largely because of the evolving approaches discussed in this article, quite a bit of the text still required work, most plates still had to be checked carefully for accuracy, the facing plates had to be completely rewritten to reflect our improved knowledge and new material in the plates, and the maps had to be extensively reworked. I had already started working part-time at Michigan State University, where my husband had become Curator of Paleontology, and shortly after Ripley's death I moved there full-time. As an Assistant Curator at the MSU Museum, I was able to devote considerable time to work on the field guide, and its incessant demands and deadlines meant that I was compelled to work on it virtually all my waking hours, to the exclusion of everything else. It seems, paradoxically, that finishing a field guide means not being able to get out into the field, but that is the way it was for me. The later stages were greatly assisted by the assiduous editing of Nigel Collar. Fortunately, the project was finished (except for multiple stages of proofs) before my time was fully committed to teaching at MSU.

Frankly, the very best thing that happened for the book was when Lynx Edicions agreed to publish it. Dr Josep del Hoyo was enthusiastic about the project, and agreed with most of my suggestions for how the book's format and content could be greatly improved, and he also came up with additional great ideas. Previously, we had been limited to a number of plates that was much too small to get the job done rightmany plumages were missing, and many plates were too crowded, making them visually distracting. With Lynx, we were able to agree that we would digitally recompose the existing plates to what we felt was the optimum number (180). We were also able to have color maps, which would be opposite the illustrations. Eventually, we agreed that the book really should be divided into two volumes, first and foremost so that the field guide section would be portable, a constraint uppermost in every birder's mind. This kept me from being forced to edit out much of the laborious text work already done, and allowed for the detailed vocal analyses and presentation of sonagrams, treatment of geographic variation and distributional problems, and the relatively detailed index and appendices. Working with Lynx staff was always a pleasure-at least from my point of view! Perhaps it was less so for them, as countless (and no doubt irritating) changes had to be introduced to various stages of the proofs, some of them in very late stages, such as when Ben King's rediscovery of the Mishmi Wren-babbler Spelaeornis badeigularis was announced in late February 2005 (the book appeared in April!).

All these improvements, however, meant a considerable additional investment in time and resources, much more than any of us anticipated. John and I had already numbered and labeled all the figures of all the plates multiple times, but then we had to come up with a new plan for the recomposition, which of course meant a whole new numbering system. John spent weeks designing a new layout for the recomposed plates, and I had to do a lot more paperwork planning additional figures to be added, contracting artists again, preparing more specimen loans, photographing specimens, etc. Because in the original plates many figures overlapped, some of different species, a considerable amount of digital reconstruction was necessary, and John took a short course in Adobe Photoshop, which enabled him to do much of this work. The recomposition was also hugely time-consuming for the staff at Lynx. But we like to think the end result was surely worth it!

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Ladakh: 26 May-26 June 2004

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Introduction

y wife accompanied me on my tenth visit to Ladakh. The main objectives of this trip included updating Ladakh wildlife records, especially mammal and breeding bird observations, photography, and promoting my forthcoming book 'Birds and Mammals of Ladakh' (launched by end of June 2004). Book promotional activities forced us to spend excessive time in Leh town. Our fieldwork, however, concentrated on areas north of Leh, the Shey-Tikse marshes, the Rumbak area in Hemis National Park, Hemis Shukpachan, Wanla region and Rupchu, within the latter focusing mainly on Chumatang, Yoye-Tso, Sumdo, and Tsomoriri with Thadsang Karu, Puga, Tso-Kar and Taglang-La. The planned breeding bird survey in Nubra Valley had to be cancelled following two failed attempts to cross Kardung-La when first we were blocked for an entire day (10.vi) at Pulu South by snowfall and again the following day by avalanches.

In Leh we stayed at 'Hotel Snow View' at Upper Changspa / Leh (Tel. +91-1982-252504/250153; email: snowviewleh@ hotmail.com), a nicely located, quiet hotel a bit above Leh bazaar, offering cozy rooms, tasty food and a nice view into Stock Kangri. Its owner, David Sonam, is probably one of the most knowledgeable persons in town about birds and his diverting chats are full of good stories and useful hints. Tsering Tashi, my old friend, accompanied us (as usual) for fieldwork, taking good care of our well being and keeping his binoculars always within reach. And Dorje drove us safely into all those narrow valleys and plains. In Rumbak we stayed with local people who offered guest-rooms, whereas in the remaining places we pitched camp.

Initially the weather was often cloudy, cold and windy, but it improved during the second part of our trip and turned warm towards the end of our stay. The rivers therefore originally carried very little water (especially in the eastern and central parts of Ladakh), a matter of grave concern for farmers who needed to irrigate their sprouting barley fields; this drought was due to a very dry winter and prevailing unusually low temperatures, preventing what little snow existed in the upper reaches from melting. Fortunately the situation improved in the valleys towards end of June, whereas water level at Startsapuk-Tso remained extremely low with the main feeder streams dry and the spillover connection into Tso-Kar barren. The low water table offered apparently favorable breeding conditions to Great Crested Grebes Podiceps cristatus in Startsapuk-Tso where a remarkably high number of about 100 nests were counted. In addition, some 30 Blacknecked Grebes Podiceps nigricollis were observed in the same lake about three weeks later (M. Ritschard, pers. comm.). Further, perhaps due to the snow-less winter, encounters with lagomorphs (hares and pikas) were abnormally low. Ongoing construction of a 'highway' between Mahe Bridge and Tsomoriri and the inevitable presence of road workers and their camps resulted in considerable litter. This disturbance could be the probable cause of absence of some typical species like Tibetan Partridge Perdix hodgsoniae, White-tailed Rubythroat Luscinia pectoralis or reduced density of Himalayan Marmot Marmota himalayana. Sprouting grass and barley in agriculture fields up in the Rumbak region attracted considerable concentration of Blue Sheep Pseudois nayaur offering favorable observation.

Highlights of this trip included observation of a breeding pair of Black Kite *Milvus migrans lineatus* in Leh, a Bluefronted Redstart *Phoenicurus frontalis* at Zinchan, my third encounter with the *sordidus* morph of a White-throated Dipper at Sumdo (see photo on back cover), the fantastic Blue Sheep 'show' near Rumbak and the very close encounter with two Tibetan Argali on the slopes of the Tso-Kar basin. The lush poplar and willow grove around Zinchan definitely needs greater scrutiny by passing observers since this spot frequently hosts exciting bird rarities.

Itinerary

- **26 May:** Arrive early morning in Leh (3,500m). Rest all day. Sunny morning, overcast afternoon, windy and cold.
- **27-28:** Leh, resting, organizing trips and permits, book promotion, birding in the surrounding. Morning partly sunny, but cold. Overcast afternoon, with sandstorm.
- **29:** Shey marshes (3,260m). Sunny and warm.

- **30:** Walk along the river from Leh up to Horzey (3,840m). Sunny and warm.
- **31:** Leh. Sunny and warm.
- **1 June:** Dropped at Zinchan (3,250m) and walked up to Rumbak village (4,000m). Cloudy and windy. Rumbak cold and snowing.
- **2-6:** Rumbak and surroundings including Stock-La base (4,600m), Hussing Nullah (4,000-4,500m) and Yurutse (4,200m) towards Ganda-La (4,500m). Generally overcast and windy, cold including snow showers, but also a few hours of sunshine.
- **7:** Returned from Rumbak to Zinchan, drove to Leh via Trisul-Tso (3,270m). Overcast and rain. Later dryer and windy.
- **8-9:** Leh, book promotion. Cloudy, cold.
- **10:** Towards Kardung-La, blocked at South Pulu (4,630m) for the entire day because of snowfall.
- **11:** Again towards South Pulu but sent back because of avalanches. Changed plans and continued to Hemis Shukpachan (3,760m). Morning overcast and cold with light snowfall. Afternoon, while moving lower and westwards, improving to sunny and warmer.
- 12: Around Hemis Shukpachan, mainly around Juniper *Juniperus macropoda* stands – one of the only places in Ladakh where remaining groves of very old juniper trees can be seen. Sunny and warm.
- **13:** Moved on via Likir, Khaltse to Wanla (3,200m). Sunny and warm.
- 14: Wanla area. Sunny and warm.
- **15:** Returned via Khaltse, Alchi Bridge with its Stupa and pre-historic animal rock carvings, Phyong (3,600m) and Trisul-Tso to Leh. Sunny, later partly overcast.
- 16: Leh. Mostly sunny and warmer.
- 17: Tikse-Shey marshes. Sunny and warm.
- **18:** To Chumatang (4,000m). Slightly overcast, cool and windy.
- **19:** Via Yoye-Tso (4,730m) to Mahe Bridge (4,050m) and on to Upper Sumdo (4,320m). Overcast and windy, later heavy rain.
- **20:** Around Sumdo. Weather improving during morning later turning sunny and warm.
- **21:** To Tsomoriri (4,600m) via Thadsang Karu (4,710m) and back to Sumdo. Cloudy-sunny and windy.
- 22: To Tso-Kar (4,600m) via Puga (4,450m).

Cloudy-sunny and very windy.

- **23-24:** Explored the Tso-Kar basin. Generally sunny and warm, but partly windy and cold.
- **25:** By mid-day drove via Taglang-La (5,320m) and Miru (3,700m) back to Leh. Sunny and warm, turning very windy in the Indus Valley.
- **26:** Leh. Rather sunny and considerably warmer than a week earlier.
- 27: Departure for Delhi with freshly snow covered mountain tops bidding fare-well!

Annotated checklists Birds

- Little Grebe *Tachybaptus ruficollis* Two birds in breeding plumage (7, 11, 15.vi) in Trisul-Tso.
- Great Crested Grebe *Podiceps cristatus* One pair (incubating) in Yoye-Tso; common at Tsomoriri (6+ nests at northern shore); common in Startsapuk-Tso (about 100 nests) – pairs mainly incubating, some constructing nests and some already with chicks.
- Grey Heron Ardea cinerea One bird at Yoye-Tso.
- Bar-headed Goose *Anser indicus* Common at Thadsang Karu Lake and Tsomoriri (with chicks); common (200 birds) in Startsapuk-Tso (some with chicks).
- Brahminy (Ruddy) Shelduck *Tadorna ferruginea* Two pairs in Yoye-Tso; common at Thadsang Karu lake, less so at Tsomoriri (few with chicks); occasional in Puga and Sumdo, more common at Tso-Kar than Startsapuk-Tso.
- Gadwall *Anas strepera* Two males / one female (7, 15.vi) in Trisul-Tso; two pairs in Yoye-Tso.
- Eurasian Wigeon *Anas penelope* Two pairs in Yoye-Tso; 20+ birds in Startsapuk-Tso (some males moving into eclipse).
- Mallard *Anas platyrhynchos* One male in Startsapuk-Tso.
- Northern Shoveller *Anas clypeata* One pair (11.vi), one male (15.vi) in Trisul-Tso; one male at Shey fish ponds.
- Northern Pintail *Anas acuta* Seven pairs (11.vi) in Trisul-Tso; about seven pairs in Yoye-Tso; 40+ birds in Startsapuk-Tso.
- Garganey Anas querquedula Three pairs (15.vi) in Trisul-Tso.
- Red-crested Pochard *Rhodonessa rufina* One male in eclipse / two females (7, 11, 15.vi) in Trisul-Tso; occasional (males in eclipse) in northern part of Tsomoriri; two pairs in Startsapuk-Tso.
- Common Pochard Aythya ferina Three

males, two females (7.vi), one male (11.vi), three males, two females (15.vi) in Trisul-Tso.

- Tufted Pochard *Aythya fuligula* One male (7, 11, 15.vi) in Trisul-Tso.
- Common Merganser *Mergus merganser* One female in Indus at Chumatang; one female in northern Tsomoriri.
- Black Kite *Milvus migrans lineatus* One pair breeding in an old Black-billed Magpie *Pica pica* nest in a poplar tree (*c*. 8m above ground) in the Leh circuit house complex (3,600m) – one of the first confirmed breeding records for Ladakh.
- Bearded Vulture *Gypaetus barbatus* One sub-adult over Rumbak; one adult below Stock-La / Hussing Nullah; one bird roosting below southern reach 5km before Mahe Bridge; one adult at nest with unfledged chick (at eastern reach before ascending steep slope towards Yoye-Tso); a pair in spectacular courting display flight at Puga-Sumdo (calling a very soft '*piaa*'); one bird at Tsomoriri; one bird over Startsapuk-Tso; over Dibring one bird soaring before and another another immediately north of Taglang-La in its roost / nest.
- Himalayan Griffon *Gyps himalayensis* One immature below Stock-La / upper Hussing Nullah; six birds soar around peaks of northern reach (3km after Likche, 3,680m); three birds sit in respective white-washed roosts / nests located on high cliffs in northern reach (5km after Likche, 3,710m).
- Long-legged Buzzard *Buteo rufinus* One bird near Tso-Kar.
- Upland Buzzard *Buteo hemilasius* One bird at Tsomoriri below Korzak.
- Golden Eagle *Aquila chrysaetos* One bird gliding along cliffs near 'nest' in Rumbak Gorge.
- Common Kestrel *Falco tinnunculus* One pair in Leh breeding in an old Black-billed Magpie nest (c. 8m above ground) in poplar tree in the circuit house complex (five trees away from the Black Kite nest, fighting often for the dominant perch on a neighbouring dry / dead treetop. Kestrel is more aggressive). The male carries a Himalayan Agama *Laudakia himalayana* and presents it to the begging female, sitting on the perch; one female accompanying her fledged chick in flight training above Upper Sumdo; one female at Puga; two birds in the Tso-Kar plains.
- Eurasian Hobby Falco subbuteo One bird

hunting dragonflies over 'fishponds' in Shey marshes and devouring the catch in flight, while its partner called from a nearby poplar tree (29.v) and again (17.vi) presumably the same pair hunting dragonflies over the same site; a pair breeding in old Black-billed Magpie nest in poplar tree (c. 12m above ground) after Shey bridge. Female incubating while male, perched on a horizontal branch of the neighbouring tree calls frequently in fast repeated, rising '*piu-piu-piu...*'

- Saker *Falco cherrug milvipes* One shy bird for three days (its established territory?) above southern edge of Startsapuk-Tso.
- Tibetan Snowcock *Tetraogallus tibetanus* Two birds heard for three days in the early mornings in the upper slopes high above Upper Sumdo.
- Himalayan Snowcock *Tetraogallus himalayensis* Occasional along the upper hillsides above Rumbak; four birds above Yurutse (+4,500m); 20 birds below Stock-La / above Hussing Nullah (4,600m).
- Chukor *Alectoris chukar* Two birds at Horzey / Leh; common to abundant from Zinchan to Yurutse up to below Ganda-La but also into Hussing Nullah and especially around Rumbak 'the Chukor capital'; common around Hemis Shukpachan, and also around Wanla.
- Black-necked Crane Grus nigricollis One pair breeding on longish island at the northern pond off the main lake at Yoye-Tso. A new breeding spot, since my research, on the species in Ladakh from, 1995-97. The nest contained two creamy, reddish-brown splotched eggs, laid directly on the grass - no nesting material being added. The partner feeding in the nearby marshes amongst sheep, goat and yak is frequently chased by a shepherd dog; one second-year sub-adult at northern feeder-stream delta at Tsomoriri; two (non-breeding) pairs and one 'loner' in the Tso-Kar plains and shuttling to Puga.
- Common Moorhen *Gallinula chloropus* Six birds in Shey marshes mainly in the fish ponds.
- Common Coot *Fulica atra* Ten birds in Shey marshes – mainly the fish ponds; three birds (7.vi) and two birds (11.vi) in Trisul-Tso; one bird in Yoye-Tso; occasional in northern part of Tsomoriri; 70 birds in Startsapuk-Tso. Compared to earlier year counts I would suggest the summering coot population in Ladakh is increasing.

- Little Ringed Plover *Charadrius dubius* Two birds, probably a pair, on a side-canal in the Shey marshes.
- Lesser Sand Plover Charadrius mongolus Common at Thadsang Karu Lake and around the Tso-Kar Lakes; about 20 birds on the northern feeder-river delta of Tsomoriri. Males of this latter group were lacking any white on lower forehead or above lore - characteristic of the usual Ladakh breeding form 'atrifrons', but appeared black from forehead and lore to ear-coverts, i.e. identical to the Tien-Shan / Karakorum breeding form 'pamirensis'. of identification Confirmation (photographed) would indicate a new subspecies for Ladakh, on migration to reach its breeding grounds.
- Common Redshank *Tringa totanus* Two birds at Yoye-Tso; occasional in the Puga plains; rather common in the Tso-Kar plains especially around Startsapuk-Tso. Green Sandpiper *Tringa ochropus* One bird
- at the spring at northern Tso-Kar.
- Brown-headed Gull *Larus brunnicephalus* One over Indus at Chumatang; one bird over river at Upper Sumdo but occasional at Puga; abundant at Thadsang Karu Lake and Tsomoriri, and common over the Tso-Kar lakes and breeding in Startsapuk-Tso.
- Common Tern *Sterna hirundo* One pair on Indus at Shey marshes (29.v, 17.vi); one over Indus at Chumatang; one bird over Yoye-Tso; two records over northern Tsomoriri, and four birds at Startsapuk-Tso.
- Tibetan Sandgrouse *Syrrhaptes tibetanus* Daily fly-past of a pair (07:30hrs) and one male drinking at spring at Startsapuk-Tso.
- Blue Rock Pigeon *Columba livia* Common throughout the areas visited in the lower regions of Ladakh to about 3,900m.
- Hill Pigeon *Columba rupestris* Common throughout visited parts of Ladakh up from 3,800m, but mainly above 4,000m.
- Oriental Turtle-Dove Streptopelia orientalis Occasional to common in groves throughout the lower regions of visited parts of Ladakh to about 3,700m, with single sightings up to Rumbak; two fledglings at Hemis Shukpachan.
- Common Cuckoo *Cuculus canorus* One female in hepatic morph in Wanla area; one male (calling) and one female (hepatic morph, also calling) in the Shey-Tikse marshes.
- Eurasian Eagle-Owl *Bubo bubo* An adult with one downy chick in a rock-niche nest in steep rock-wall at Upper Sumdo; one

adult in northern rock wall above nomad winter settlement at Puga.

- Little Owl *Athene noctua* One pair breeding in rock-fall at southern end of Startsapuk-Tso, with the male hunting in grassland near the spring and carrying vole-kill up into the rocks. The nest site was found in a changed location due to destruction of their traditional breeding place (Pfister 1999).
- Common Swift *Apus apus* One bird over Shey marshes; two birds over Indus-Rumbak river junction; one bird over Startsapuk-Tso.
- Pacific Swift *Apus pacificus* Two birds over Indus-Rumbak river junction.
- Common Hoopoe *Upupa epops* Quite common around Leh (pairs calling); common in Shey marshes (a pair courting, others carried food); one bird in the Wanla area.
- Eurasian Wryneck *Jynx torquilla* One bird in the Wanla area, perched in a poplar tree in woodpecker-fashion, calling unceasingly in a repeated (c. 15-noted) fast '*piu-piu-piu-piu*...'.
- Hume's Short-toed Lark *Calandrella acutirostris* Occasional at Yoye-Tso; common around Thadsang Karu lake and Tsomoriri; common in Puga; common (also incubating) in the Tso-Kar plains.
- Eastern Skylark *Alauda gulgula* Occasional (including some singing males) in Hemis Shukpachan; occasional in the Shey-Tikse marshes.
- Horned Lark *Eremophila alpestris* Occasional in the upper Rumbak Valley from Rumbak upwards; common towards Kardung-La (South Pulu); common in the Rupchu region including Yoye-Tso, Thadsang Karu lake and Tsomoriri, Puga-Sumdo or Tso-Kar plains (also incubating).
- Sand Martin *Riparia riparia* One bird in the Wanla area.
- Eurasian Crag-Martin *Ptyonoprogne rupestris* Occasional in Rumbak Valley (*c.* 3,500m); a pair incubating in a small breeding colony (together with Northern House Martin) above Alchi Bridge (3,200m) on 13.vi. The nest was found destroyed two days later (vandalism) and the clutch of four brown-splotched white eggs lay broken underneath, with the birds gone; two birds over Indus 3km after Likche (3,680m); common (breeding) in the Puga-Sumdo area.
- Barn Swallow *Hirundo rustica rustica* Two birds over Shey marshes; a pair at

Startsapuk-Tso.

- Northern House-Martin *Delichon urbicum* One over Choglamsar; three pairs building nests in a small breeding colony (with Eurasian Crag-Martin) above Alchi Bridge (3,200m) on 13.vi. Two days later the colony was found destroyed (vandalism) and the birds gone; two birds over Indus 9km before Mahe Bridge; common along the north-facing rock wall east of Sumdo (seven pairs in nests / incubating).
- White Wagtail *Motacilla alba alboides* Common above Leh along Leh River and the Shey-Tikse marshes; one bird in Wanla area; quite common around Chumatang.
- White Wagtail *Motacilla alba personata* One bird near Indus along the road *c*. 3km west of Alchi Bridge.
- Citrine Wagtail *Motacilla citreola calcarata* Common above Leh along Leh River and in the Shey-Tikse marshes; a pair below Yurutse (4,050m); one male, one female at Hemis Shukpachan; quite common in Wanla area; occasional at Yoye-Tso; common in the Puga-Sumdo area; occasional amongst the Tso-Kar plains.
- Grey Wagtail *Motacilla cinerea* One pair breeding at water canal in Leh near bazaar; common above Leh town along Leh River; two individuals and a pair along Rumbak River.
- White-throated Dipper Cinclus cinclus Three birds and two fledging chicks above Leh; two birds along Rumbak River (3,550m); one fledged juvenile along Rumbak River (3,750m); a pair carrying nesting material at upper end of Rumbak gorge (3,850m); a pair constructing a nest at the edge of a small brook below Yurutse (4,050m); two birds along northern feeder river into northern Tsomoriri; a mixed pair (normal 'cashmiriensis' and rare 'sordidus') were feeding into their nest pasted into the vertical slope of the brook at Upper Sumdo. One bird, probably a male, with the usual white throat was singing next to the nest-site. The second bird, which brooded often and removed the chick's faecal sacs, which are typical female-related attributes and females apparently do not sing during the breeding time, had a chocolate-brown breast, that was paler than remaining underparts and mantle area ('sordidus' morph). This latter bird's penultimate outer-tail feather and its second outer

primary feather were white. It collected food often away from the watercourse, in the scree. We further observed sympatric breeding of Brown Dipper and Whitethroated Dipper in a 300m-long stretch of river at Horzey (3,840m) above Leh. The Brown Dipper with three fledgling chicks and the White-throated with two fledgling chicks mixing / flying freely in their 'common territory'.

- Brown Dipper *Cinclus pallasii* Three birds and three fledgling chicks above Leh and at Horzey. The sympatric occurrence and breeding of both the Brown Dipper and the White-throated Dipper at Horzey is discussed above under 'White-throated Dipper'.
- Winter Wren *Troglodytes troglodytes* One bird at Horzey above Leh.
- Alpine Accentor *Prunella collaris* Two birds towards Kardung-La, at South Pulu.
- Robin Accentor *Prunella rubeculoides* Occasional in the Rumbak region; common towards Kardung-La, at South Pulu; common at Yoye-Tso, Puga-Sumdo, and occasional at Tso-Kar.
- Brown Accentor *Prunella fulvescens* Occasional in the Rumbak region; one bird towards Kardung-La, at South Pulu; common in the Puga-Sumdo area; a pair above Startsapuk-Tso.
- Blue Rock-Thrush *Monticola solitarius* One male below 3,600m and one near 'plantation' 3,700m in the Rumbak valley; a pair establishing territory above Rumbak (4,100m), the male singing. One singing male at Yurutse (4,400m), and two males / one female in Wanla area.
- Blue Whistling-Thrush *Myophonus caeruleus* One bird along Leh River above town; two birds (one singing) around Zinchan, and two single birds further above, after entrance to Hemis National Park; one bird in Wanla area.
- Tickell's Thrush *Turdus unicolor* A group of three males at Sumdo.
- Bluethroat *Luscinia svecica* Rather common above Leh in Buckthorn bushes along Leh River (red-star morph more frequent than white-star); common though much more visible / audible on 17.vi than during first visit in late May (red-star morph more frequent).
- Black Redstart *Phoenicurus ochruros* Common around Leh, with a pair breeding in a roadside stone wall next to the hotel; common up Rumbak Valley up to Yurutse, but also Hemis Shukpachan, Wanla area, Puga-Sumdo and occasionally in Tso-Kar

plains; most pairs busy feeding into the nest; many males appear in various shades of darker brown-to-blackcoloured back, or not uncommonly, breeding males appear in female plumage.

- Guldenstadt's (White-winged) Redstart *Phoenicurus erythrogaster* Three pairs at South Pulu towards Kardung-La defending territories; one male collecting / carrying food at Upper Sumdo.
- Blue-fronted Redstart *Phoenicurus frontalis* One male keeping territory in Zinchan grove – a third record for Ladakh only.
- Pied Wheatear *Oenanthe pleschanka* Two breeding pairs carrying food in a barren plateau along the road 3km west of Alchi Bridge.
- Desert Wheatear *Oenanthe deserti* One male towards Kardung-La below South Pulu; one male at Yoye-Tso; occasional in Puga-Sumdo including a pair carrying food; quite common in Tso-Kar plains.
- Mountain Chiffchaff *Phylloscopus sindianus* Common to partly abundant (especially in the Shey-Tikse marshes) in the lower tree-set (favouring willow trees) areas up to 3,700m. Rapidly decreasing above that and rarely up to about 3,900m.
- Tickell's Warbler *Phylloscopus affinis* Few birds amongst Caragana above Rumbak; few around Sumdo with a nest in Caragana bush – the incubating bird sitting tight even after my close (1m) approach.
- Olivaceous Leaf-Warbler *Phylloscopus* griseolus One bird in Zinchan Grove moving along poplar tree-trunk like treecreeper; one bird at 'plantation' (3,700m) in Rumbak Gorge; occasionally around Rumbak, with a pair carrying nesting material (4,100m); four birds above Yurutse (4,500m) calling in a dry sharp 'duck'; three records in Upper Sumdo.
- Hume's Lesser Whitethroat *Sylvia althaea* Common in dry scrub in Shey-Tikse marshes and Wanla area; occasional above Leh town and Hemis Shukpachan.
- Great Tit *Parus major* Common in and around Leh; occasional (some birds seen carrying food) in Shey-Tikse marshes; three and two birds in Rumbak Valley; some few records at Hemis Shukpachan; quite common in Wanla area with a pair feeding into nest located in a willow trunk slit.
- Eurasian Golden Oriole *Oriolus oriolus* One female in Wanla area; a pair at Shey-Tikse

marshes.

- Long-tailed Shrike *Lanius schach* One bird in Wanla area (singing unceasingly from top of poplar tree, among other calls, imitating Red-wattled Lapwing *Vanellus indicus* and Eurasian Golden Oriole).
- Grey-backed Shrike *Lanius tephronotus lahulensis* One bird at Chumatang (called frequently).
- Black-billed Magpie *Pica pica* Common around Leh; the Shey-Tikse Marshes; Hemis Shukpachan to Wanla; occasional up Rumbak Valley to Rumbak, or up Indus to Chumatang.
- Hume's Groundpecker *Pseudopodoces humilis* One pair collecting food at southern end of Startsapuk-Tso and carry it far up into southern slope. Another bird collecting food at south-western end of lake and flying up into south-western barren slope.
- Red-billed Chough *Pyrrhocorax pyrrhocorax* Occasional over Leh; some individuals towards Rumbak Gorge and a pair nesting (incubating) in a hole in moraine wall below Rumbak; occasional towards Yurutse (4,500m); common in Hemis Shukpachan; quite common in Wanla area including a pair with two fledged chicks; occasional around Chumatang and common at Tsomoriri.
- Yellow-billed Chough *Pyrrhocorax* graculus Three birds towards Kardung-La at South Pulu; occasional at Hemis Shukpachan (mixing with Red-billed Chough around feeding places).
- Large-billed Crow *Corvus macrorhynchos intermedius* Two birds (probably a pair) at the back dump of circuit house complex (wedged tail exceeding tip of primaries at rest, with rather slim and longish bill).
- Common Raven *Corvus corax* One bird soaring over Leh; two birds at northern end of Tsomoriri; three birds at Tso-Kar and three at Startsapuk-Tso.
- House Sparrow *Passer domesticus* Very common in and around Leh (busy in nest construction), Shey-Tikse marshes, Hemis Shukpachan; common in Rumbak Valley up to Rumbak; abundant around Chumatang, and common around Korzak at Tsomoriri.
- Tibetan Snowfinch *Montifringilla adamsi* In general quite common above 4,000m in central and eastern Ladakh including Rumbak to Yurutse, or the Rupchu region with a pair collecting food at Chumatang and many feeding into their nest or fledged chicks at Tso-Kar.

- White-rumped Snowfinch *Pyrgilauda taczanowskii* One bird above the slopes of Thadsang Karu Lake.
- Plain-backed Snowfinch *Pyrgilauda blanfordi* Occasional to quite common amongst the sandy slopes of Startsapuk-Tso (feeding into nest or fledged chicks).
- Plain Mountain-Finch *Leucosticte nemoricola* Three birds after Rumbak gorge (3,900m) but common around / above Yurutse (to 4,500m); occasional in the Wanla area.
- Brandt's Mountain-Finch *Leucosticte* brandti Common towards Kardung-La around South Pulu; common at Yoye-Tso, around Sumdo-Puga, Tsomoriri and Tso-Kar.
- Common Rosefinch *Carpodacus erythrinus* Occasional in Shey-Tikse marshes, mainly along willow-scrub near moist areas (on inward migration); occasional around Zinchan but common around Wanla area, and a pair at Sumdo.
- Red-mantled Rosefinch *Carpodacus rhodochlamys* One male and five females on barren sandy slope south of the Wanla area.
- Streaked Rosefinch *Carpodacus rubicilloides* Common around Rumbak (4,000m) but less so around Yurutse (up to 4,500m); one male, three females at Chumatang; occasional around Puga-Sumdo. The species favours Caragana bushes.
- Great Rosefinch *Carpodacus rubicilla* One territorial male towards Kardung-La at South Pulu; four pairs (4km before Likche, 3,650m) towards Chumatang. The species favours dryer boulder strewn slopes.
- Twite *Carduelis flavirostris* Encountered mainly above 4,000m. Occasional around Rumbak; common at Yoye-Tso, Puga-Sumdo, Tsomoriri (with fledged chicks), or Tso-Kar plains.

Fire-fronted Serin Serinus pusillus Common

at Shey-Tikse marshes – favours blooming willow trees and feeding on its seeds; occasional above Leh town; common in Rumbak Valley, feeding at blooming willow; occasional towards Yurutse (4,500m); common at Hemis Shukpachan (a pair observed: female alone is constructing nest while male followed her on material collection and perched in vicinity singing); common in Wanla area but occasional in Chumatang.

Rock Bunting *Emberiza cia* Occasional in the Rumbak region, in Hemis Shukpachan and one record in the Wanla area.

Mammals

- Nubra Pika Ochotona nubrica Common amongst caragana in Upper Sumdo.
- Royle's Pika *Ochotona roylei* Few animals in Rumbak gorge; occasional to fairly common (probably this species) amongst caragana above Rumbak; one at Hemis Shukpachan.
- Woolly Hare *Lepus oiostolus* One above Rumbak; one at Upper Sumdo and one dead animal south of Startsapuk-Tso.
- Himalayan Marmot *Marmota himalayana* Occasional around South Pulu towards Kardung-La; three animals at Saspotse near Hemis Shukpachan; common at Yoye-Tso, Upper Sumdo, Tsomoriri and common at Tso-Kar.
- Stoliczka's Mountain Vole *Alticola stoliczkanus* Common at Tsomoriri and the Tso-Kar plains.
- Snow Leopard *Uncia uncia* Fresh tracks and two calls (5.vi) in Hussing Nullah Rumback region.
- Red Fox *Vulpes vulpes* One adult with three growing pups in grassland at Startsapuk-Tso.
- Mountain Weasel *Mustela altaica* One below Rumbak gorge.

group of seven above Yurutse; a group of six males on the southern ridge above Startsapuk-Tso; two females in slope at southern end of Startsapuk-Tso.

- Ladakh Urial *Ovis vignei* Two females and one 'fresh' lamb in the plains after Lama Guru Sikh temple before Zanskar-Indus junction; two sub-adult males in Wanla area.
- Bharal (Blue Sheep) *Pseudois nayaur* A group of 30 (mixed females with yearlings and younger males) just after Rumbak gorge; common above Yurutse; occasional above Rumbak; two females before Likche; a group of 14 juveniles and sub-adults on north-facing rock-wall between Upper Sumdo – Sumdo.
- Kiang *Equus kiang* Common (120 animals) in the Tso-Kar plain.

Reptiles

- Himalayan Agama *Laudakia himalayana* Occasional around Leh; common towards Hemis Shukpachan and in the Wanla area.
- Theobald's Toad-headed Agama *Phrynocephalus theobaldi* Common on arid slopes towards Yoye-Tso (to 4,800m); above Thadsang Karu and around Tso-Kar basin.
- Ladakhi Rock Skink *Asymblepharus ladacensis* Occasional amongst boulders or below low bushes in the Rumbak valley up to above Yurutse (4,500m).
- One unidentified small Lizard (about 7cm long including tail, dark, blackish darkgrey over back with small pale spots) in rocks, scree at 4,300m in Hussing nullah.

Reference

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Pune birds, with special reference to distribution updates

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From 1992-1996 I spent over a thousand hours birding in winter around Pune, mostly near the Mula-Mutha River to the west of Koregaon Park, Sinhagad and Mahabaleshwar, with single visits to Valvan-Lonavla for three days and single day visits to Ujani (Bhigwan) and Veer. When the recent field guides (Grimmett et. al. 1998;

Kazmierczak 2000) were published I was very impressed by the distribution maps, but noticed a few discrepancies when I compared these with the observations of some Pune-based birdwatchers and my own notes. Many species that were mapped as rare or absent were so common that notes had not been kept, which made me want to return and gather indisputable evidence in the form of detailed notes and if possible photographs. Most of these discrepancies are also supported by published material, which I collected when researching a paper on the birds of western Maharashtra (Prasad 2003). This winter I had the opportunity of returning for five days' birding (29.i.—

Tibetan Argali Ovis ammon hodgsoni A

7.ii.2005) and I managed to verify many of my previous observations. I was also lucky to see three rarely observed species for this locality (Prasad 2005).

Tawny Pipit Anthus campestris is a fairly common winter visitor around Pune and in many areas I visited this winter it was the only pipit species observed. This was presumably due to the locations which I chose to cover: very dry habitats. At Saswat-Dive Ghat (Pune District) on 29.i.2005, Rahul Purandare and I saw at least six and I took photographs; the only other pipit we saw was a solitary Paddyfield A. rufulus at a lower elevation near the stud farm. At the same locality, on 5.ii.2005, Tawny Pipit was also common and was the only pipit seen, and photographed, during a full days' visit. At Bopdeo Ghat (Pune District) on 6.ii.2005, again Tawny Pipit was the only pipit observed with two individuals noted.

I had previously noted this species as fairly common around Pune and so had not kept detailed notes. Observations recorded included: Saswat-Dive Ghat, one on 14.xi.1994 (AP pers. obs.); Mula-Mutha, singles on 11.xi.1994, 20.xi.1994, 8.xii.1994, 27.xii.1994 (AP pers. obs.).

Recorded by others in Pune District: Rajgurunagar Sahyadri School, two between 29.i-4.ii.2001, VS (Prasad 2003); Ujani (Bhigwan) (Kalpavriksh 2001); Kasurdi one on 5.ii.1989. Veer, one on 7.ii.1989 (Addition to Bradbeer 1987). Further records from other Districts: Gangapur Dam (Nasik District), six on 13.iii.1999, BR / SG / SR / DU / NB (Pittie 1999e); Ratnagiri District, 'common on rocky open tops of hills' between 7-19 January, when no other pipits were listed (Soman 1963); Bombay, 'uncommon, overlooked' (Monga 2001); Bombay and neighbouring area, 'occasional, migrant' (Abdulali 1981a); Bassein, Thane District (one), Bombay (five), Satara (one), specimens in BNHS collection (Unnithan 1995, Ali and Abdulali 1938); Buldana, isolated record (Grimmett et al. 1998); Deccan, common (Fairbank 1876); Deccan, "Jerdon remarks, 'most abundant in the Deccan'," (Butler 1881), Dhule, Dhule District, a few in October (Davidson 1882).

This species is recorded very regularly in Goa and this is correctly illustrated in the distribution maps of Kazmierczak (2000).

Butler (1881) failed to record this species at Belgaum, the area to the east of Goa, and

noted correctly that it was not included in Vidal's (1880) south Konkan list, or in Davidson and Wenden's (1878) paper on the Deccan. However the species was recorded in North Kanara, near Belgaum, Karnataka 'on bare hills of Kumta and Honawar talukas' by Davidson (1898) and also at Londa near Belgaum, Koelz (1942) saw 'only on the pasture plain at Jagalbed, where a flock of perhaps 20 arrived on 9/3/ 38.' Ali and Ripley (1983) give the distribution as, 'Greater part of Indian Peninsula south to Londa near Belgaum'. The lack of observations by Vidal (1880) in the south Konkan is contrary to the records of this species in Ratnagiri District by Soman (1963) and perhaps this and the other differences in opinion on its distribution in the Deccan are due to the sporadic appearance or local distribution of this species. It is also possible that Wenden and Davidson (1878) simply omitted (accidentally?) this species from their list as Butler (1881) suspected they did for two other species White-eyed Buzzard Butastur teesa and Bronze-winged Jacana Metopidius indicus; Eurasian Crag Martin Hirundo rupestris was also omitted from their list but was recorded as 'not uncommon' by Butler (1881) at Satara, the area covered by Davidson and Wenden.

In Goa, Lainer (2004) records this species as scarce and cites various sources. Further records from Goa include: Chapora, two on 9.xii.1994 (Martin and Martin 1995); Goa, 'the most reliable site is Dona Paula Ridge, with occasional records from Baga', (Hill 1997); Dona Paula, three in November 1994; 'May also occur in other suitable habitats throughout Goa,' (Willoughby 1996); 'Fairly common at times,' (Harris 1996); Dona Paula 3+ on 6.ii.1996, PH (Holt 2000); Dona Paula 3+ on 4.xii.1997, five on 15.xii.1996, two on 7.xi.1997, nine on 28.xi.1997, two on 9.ii.1998, PH (Holt 2000); Aguada one on 8.xi.1997, PH (Holt 2000); Baga Goa, one on 15.xi.1997, one on 5.xii.1997, PH (Holt 2000); Baga not uncommon, ones and twos on several dates (AP pers. obs.); Carambolim, Baga, Molem in February 2000 (Aelvoet 2000); Arambol Plateau, Goa, one on 22.i.2001 (AP pers. obs.).

There is a record of a 'solitary nest found (of) tawny pipit' at Ujani (Bhigwan), Pune District (Bharucha and Gogte 1990) and in the checklist published in that article it is also listed as a common resident in 1986 and 1989. This was the only pipit species recorded by Bharucha and Gogte (1990) and was most probably misidentified for Longbilled Pipit *Anthus similis* or Paddyfield Pipit. [For picture of Tawny Pipit, Saswat-Dive Ghat (5.ii.2005) see contents on website.]

Desert Wheatear *Oenanthe deserti* is a fairly uncommon winter visitor to the Pune area but certainly more common in the Deccan than the isolated records shown in Grimmett et al. (1998). Rahul Purandare and I observed an individual at Saswat-Dive Ghat on 29.i.2005, which I managed to photograph. I observed, perhaps the same individual, at the same locality on 5.ii.2005.

Recorded by others in Pune District at: Pashan (Ingalhalikar and Gole 1987); Mula-Mutha, in rocky areas with surface quarrying, one on 20.xi.1993, one on 28.xi.1994 (AP pers. obs., Kalpavriksh 2001); Pune between 1-7.iii.1979 (Gole 1980); Pune, uncommon (Mahabal and Lamba 1987); Khamgaon, undated (Purandare 1989); Varvand, undated (Kalpavriksh 2001); Patas one on 20.ii.1982 (Mundkur 1984); reservoirs around Pune, undated (Gole 1984).

Further records from other districts: Nanaj (Sholapur District), four on 1.xi.1986 (Bradbeer 1987); Karmala, Malshiras, Sangola, Sholapur, Akalkot talukas (Sholapur District) (Mahabal 1989); Ahmednagar, rare (Fairbank 1876); Dhule District, once or twice (Davidson 1882); Dativare Thane District, between November 1993 and June 1994 (Chandrasekharan et al. 1994); Kihim (Raigad District), 1 on 8.xi.1954 (Futehally 1995, Editors 1992); Vashi (Bombay), one on 20.i.2002, BA (Prasad 2003); Elephanta (Bombay), regular since 1982, KS (Prasad 2003); Manori Beach to Gorai Beach, undated, KS (Prasad 2003); Bombay Airport one on 24.xi.2001, SD (Prasad 2003); Sewri (Bombay), one on 21.x.2001, BA (Prasad 2003); Erangal Bombay, two in December 1985, SM (Prasad 2003); SGNP Bombay, a few on 28.i.1973 (Amladi 1973a); Erangel Bombay, one on 21/ 2/70, and two 'previously,' (Stairmand 1970g, 1970c); Bombay sea wall, 2-3 on 14.xi (Martin 1944); Worli Hill (Bombay), one undated (Acland 1942); Arnala Island (Bombay), a few on 8.i.1971 (Navarro 1971); Bombay specimens: 27.ii.1924 from Pali Hill Bandra; male 12.xi.1912 and male 14.ii.1913 from Santa Cruz; 3.i.1933 and 10.xi.1933 from Andheri. 'Sparse but regular visitor to our area,' (Ali and Abdulali 1937) Probably the five specimens in BNHS museum (Abdulali 1988); Bombay in 1990 (Anon. 1900). The

following record probably also refer to this species: Colaba Point (Bombay), 'Many Palaearctic migrants...mostly wheatears, (etc.),' on several days observing between 26-28.x.1974 and 17-20.x.1974 (Sinclair 1977); Phansad Wildlife Sanctuayr (Raigad District), February 2000 and / or February 2001, BK (Prasad 2003); Central Maharashtra, 'South to central Maharashtra (Poona. Ahmednagar),' (Ali and Ripley 1983).

There may have been a range expansion of this species over the years. In the 19th century it was apparently rare in western Maharashtra. Butler (1881) knew of only Fairbank's (1876) record, but it could be that the bare rocky areas inhabited by this species were rarely visited. [For picture of Desert Wheatear, Saswat-Dive Ghat (5.ii.2005) see contents on website.]

Rufous-tailed Shrike Lanius isabellinus is

an uncommon winter visitor to western Maharashtra but certainly more common in the Deccan than the one isolated record at Bombay shown in Grimmett et al. (1998). Rahul Purandare and I observed an individual at Saswat-Dive Ghat on 29.i.2005 and I took some photographs. The photograph is clearly of the paler, less clearly marked taxon *Lanius isabellinus isabellinus*, which may become a separate species from *L. i. phoenicuroides*, if the latter is elevated to full species status, as is proposed by Harris and Franklin (2000).

Recorded by others in Pune District at: Rajgurunagar Sahyadri School, one seen once between 29.i.2001-4.ii.2001, VS (Prasad 2003); Pashan (Pune), twice, undated, RP (Prasad 2003); Kawadi one on 14.xii.1986 and Wurwund one on and10.i.1987 and 26.i.1987 (Bradbeer 1987); Kasurdi 2-3 times 1987-1989, RP (Prasad 2003, Purandare 1989); Patas, once, undated, RP (Prasad 2003); Patas, undated, PG (Prasad 2003); Mula-Mutha Pune, one probable on 16.i.1994 (AP pers. obs.); Pune undated (Ingalhalikar *et al.* 2000-2001).

Further records from other districts: Gangapur Dam (Nasik District), 'Uncommon. Regular sighted every winter from Oct to March,' BR (Prasad 2003); Hippargaum (Sholapur District), one in January / February 1998 (Adelson 1998); SGNP Bombay, one on 28.i.1938 (Serrao 1973); Kihim (Raigad District), 'little brown shrike' between 20-30.xii.1988 (Futehally 1989); Bombay on 29.ix (Martin 1944); Rewas (Raigad District), male shot on 3.xii.1939 and another shot at Ghoti (Nasik District) on 1.i.1940, where common, and Trombay Island (Bombay), one on 26.i.1940 (Abdulali and Ali 1940); Esplanade (Bombay), one shot on 14.xii.1999, Andheri (Bombay), one shot on 13.ii.1935, Bombay in 1899, the famine year (Ali and Abdulali 1937).

Specimens of *L. i. isabellinus*: Ghoti, Nasik District (2), Igatpuri, Nasik District (1), Thana (2), Bombay (3, probably same specimens mentioned in Ali and Abdulali 1937) and a hybrid *L. i. isabellinus / phoenicuroides*, Nandur-Madhmeshwar, Nasik (1) from 5.xii.1942 in BNHS collection (Abdulali 1977a). In Goa there are 12 records, since the first sighting by Paul Holt on 19.xii.1996 (Lainer 2004). [For picture of Rufous-tailed Shrike, Saswat-Dive Ghat (29.i.2005) see contents on website.]

Eurasian Sparrowhawk Accipiter nisus is a fairly uncommon winter visitor to Pune District. On 6.ii.2005, at Bopdeo Ghat I saw what I presumed was a male Northern Goshawk Accipiter gentilis. I took some photographs at a range of about 300m. After returning to the United Kingdom and examining more photographs in various books I realised that the individual was actually a Eurasian Sparrowhawk with a particularly broad supercilium. The rufous neck, and on some photos, rufous throat, clinch the identification. The bars on the under-parts have a rufous tinge, which may be an optical illusion, but seem to be too broad for Northern Goshawk.

Eurasian Sparrowhawk is more common than the isolated records shown in Grimmett et al. (1998), which shows no records for Maharashtra. I had three definite records in the Pune / Satara Districts in the winter of 1993 / 1994 and seven in Pune District in the winter of 1994 / 1995 (AP pers. obs.). This species is listed as 'uncommon' in Pune District in 1987-1989 (Purandare 1989) and 'occasional' by Mahabal and Lamba (1987) and Ingalhalikar et al. (2000-2001), and 'common' in 1986 and 1989 at Ujani (Bhigwan) by Bharucha and Gogte (1990).

Recorded by others at Pune District: South Pune one female on 22.ii.1987 (Bradbeer 1987); Pune, one between 1-7.iii.1979 (Gole 1980); Pune, 'Not uncommon' (RP *pers. comm.* 2002); Pune, undated (Ingalhalikar 1988); Khamgaon, Kasurdi, Khutbav, 'uncommon' between 1987-1989 (Purandare 1989); Bhimashankar, undated (Gole 1998); Panshet, undated (Gole 1988); Rajgurunagar Sahyadri School, one possible female / juvenile, seen once between 29.i.2001-4.ii.2001 (VS *in litt.* 24.xii.2003 andand 16.xii.2003).

Near Bombay this species was unrecorded by Abdulali and Ali (1938a), but later listed as 'uncommon' by Abdulali (1981a) and more recently as 'occasional' by Monga (2001). There is a record of one from Bombay in 1972 (De 1972). At Elephanta, Bombay, Clark (1994) recorded this species in October 1990 and 'over a dozen times since then.' From 2000-2002 there were eight records from the Bombay area posted to the Internetbased mailing group <birdsofbombay@ yahoogroups.com>.

Further records from other districts: Mahabaleshwar (Satara District), one on 14.xii.1994 (AP pers. obs.), Mahabaleshwar, undated (Gole 1998); Matheran (Satara District), one between 26-28.i.2001, AA (AA 29.i.2001
birdsofbombay@yahoogroups. com>); Matheran, undated (Gole 1998); Ahmednagar city, 'uncommon' (Kurhade 1996); Sirur (probably 35km west of Bir), one female specimen from 28.xii.1894 (Field Museum 2004); Dhule District records from four sites and 'not very common' (Vyawahare 1992).

In the late 19th century Davidson and Wenden (1881) found it common in the Deccan although Butler (1881) who worked mostly around Belgaum, Karnataka, found it uncommon, occurring only as a straggler. Fairbank (1876) collected two specimens between Pune and Mahabaleshwar. In Dhule District, Davidson (1882) shot only one specimen and thought it rare but added, 'but doubtless had I been shooting small hawks as a rule, others would have turned up.'

From Goa there are nine records, since the first sighting on 28.x.1981 until 2000 (Lainer 2004). [For picture of Eurasian Sparrowhawk, Bopdeo Ghat (6.ii.2005) see contents on website.]

Eurasian Wryneck *Jynx torquilla* is a fairly uncommon winter visitor to the Pune area. In previous years I had found it fairly common near the Mula-Mutha, near Koregaon Park and at various other localities. On 6.ii.2005 I recorded one bird at Bopdeo Ghat. It is possibly scarcer to the south, with it being reported from only one taluka in Sholapur District (Mahabal 1989), but its range is certainly throughout the Deccan in western Maharashtra.

Previous records from Pune District: Katraj Ghat, undated (Ingalhalikar and Gole

1987); Koregaon Park (Pune), seen or heard occasionally in early summer of late 1980s, RM (RM in litt. 2002); Bopdeo Ghat one on 18.i.1996, one on 27.i.1996 (AP pers. obs.); Law College Hill (Pune), three or four times in 1980s, RP (RP in litt. 2002); Khamgaon, Kasurdi, Khutbav, occasional, 1987-1989 (Purandare 1989); Pune, undated (Ingalhalikar et al. 2000-2001, Kalpavriksh 2001); Pandharpur taluka (Sholapur District), undated (Mahabal 1989); Dhule city, Laling forest and Satpura hills Dhule District, undated (Vyawahare 1992); Gangapur Dam Nasik District, one on 4.i.1999, BR / SG / SR / NB (Pittie 1999c); Gangapur Dam Nasik District, one on 20.xii.1998, BR / SG / SR / DU (Pittie 1999a); Aurangabad, common (Ali and Whistler 1934); Bombay, occasional (Monga 2001, Abdulali 1981a, Ali and Abdulali 1938, Abdulali 1975).

In the 19th century, Davidson and Wenden (1878) found it moderately common in the Deccan and in Dhule District, Davidson (1882) found it common although Butler (1881) found the species rare further south at Belgaum and wrote 'occurs sparingly, in the northern portion of the region about Poona and Nagar (Ahmednagar), but it is decidedly uncommon.' The species is apparently rare in Goa, with ten records from 1986-2000 (Lainer 2004, 1999). Further records from the Goa-northern Karnataka region: Dandeli Wildlife Sanctuary (Karnataka), undated (Stanton 2002); Baga (Goa), 'occasional singles recorded' (Hill 1997); Baga (Goa), one in iii.1993 (Willoughby 1996); Calangute / Baga (Goa), three reports, by Paul Willoughby, J. Hewitt, Ian Green (Harris 1996); Baga (Goa), one on 10.i.1996, PH (Holt 2000); Molem Goa, one in ii.2000 (Aelvoet 2000); N. Kanara, 'Seen on very few occasions, at Siddapur, Karwar and along the coast,' (Davidson 1898).

Ultramarine Flycatcher Ficedula superciliaris is apparently an uncommon winter visitor to western Maharashtra but is very regular and easy to locate at Sinhagad, Pune. On 7.ii.2005 I located one male within minutes at the same locality as in almost all previous visits. The last time I visited this spot in January 1997, I pointed out a male to birding friend Amrit Laue as we entered the site! In fact I found this species so regular here that when I observed and sketched a male in Goa at Baga Hill on 8.xii.1995, I failed to realise until later, how rare it was in Goa; there being only one earlier record, between 27.xi-12.xii.1972 (Grubh and Ali 1976).

Previous records from western Maharashtra: Sinhagad (Pune District), one male on 26.ii.1995, one male in January 1997, and single males on several other winter occasions (AP pers. obs.); Sinhagad, undated, RP (Prasad 2003); Khamgaon (Pune District), once from 1987-1989, RP 2003, Purandare 1989); (Prasad Bhimashankar (Pune District), one between 28-31.xii.2001, NJ (Prasad 2003); Moti Bagh near Wai (Satara District), one on 7.ii.1989 (Addition to Bradbeer 1987); Sahyadri, undated (Gole 1998); Pune, undated (Ingalhalikar et al. 2000-2001, Mahabal and Lamba 1987, etc.); Bombay, occasional (Monga 2001); Northern Maharashtra, undated (Ali and Ripley 1983); Ajanta 'Ajunta' (Aurangabad District), type specimen from 'after May 1840,' (Jerdon 1839-1840, Jerdon 1862-1864, Whistler and Kinnear 1930-37); Ahmednagar, undated (Fairbank 1876); Akrani (Dhule District), one specimen shot in March 1881 (Davidson 1882).

Grey-headed Canary Flycatcher *Culicicapa ceylonensis* is a fairly common winter visitor to the Ghats, Konkan and Dhule District of Maharashtra and much more common than shown in Grimmett et al. (1998). I recorded one individual on 7.ii.2005, immediately upon entering the same locality as that of Ultramarine Flycatcher (see above) at Sinhagad (Pune District), where I have never failed to see this species on numerous visits in previous years.

It should be noted that this species is also found away from the Ghats and Dhule District and there have been the following records from the Deccan: Nasrapur (Pune District), December 1971 (Gay 1972); Jaikwadi Dam, Paithan (Aurangabad District), undated (Vyawahare and Kulkarni 1986); Ahmednagar, undated (Fairbank 1876).

Previous records from the Ghats and Konkan: Sinhagad (Pune District), one on 10.xi.1994, one in January 1997 and on numerous other visits, common (AP pers. obs.); Valvan-Lonavla (Pune District), 1+ between 8-11.ii.1995 (Prasad 1995); Pune, 'Uncommon winter visitor' (Mahabal and Lamba 1987); Pune, 'common, winter migrant' (Ingalhalikar et al. 2000-2001); Bhimashankar (Pune District), 'common' (Gole 1998); Bhimashankar (Pune District), between 25-29.iii.1999, NJ (Pittie 1999e); Bhimashankar (Pune District), remarkably the only record within Pune District by PB was one pair on 25.i.1987 (Bradbeer 1987); Bhimashankar (Pune District) in winter 2000/ 2001 (Pande and Pawashe 2001); Purandar (Pune District), two in early December 2000, two on 17.ii.2001 (Pande and Pawashe 2001); Mahabaleshwar (Satara District), 'common' (Gole 1998, Gole 1988); Mahabaleshwar (Satara District), undated (Gole 1988); Panshet (Pune District), undated (Gole 1988); Kalambushi (Ratnagiri District), in winter of 1999 / 2000 and 2000 / 2001, RMO (Pande and Pawashe 2001); Chiplun (Ratnagiri District), in January 2000, VJ (Pande and Pawashe 2001); Bombay, 'Occasional' (Monga 2001); Bombay and neighbouring area, 'occasional, migrant?' (Abdulali 1981a); Bombay area a few miles south of Kasa in Mahim, north of Wada, (Thane District), one shot by HA on 26.xii.1941 (Ali and Abdulali 1945); Kihim (Raigad District), one shot on same day in following year on 26.xii.1942, one noted on same day on following year 26.xii.1943 by SA! (Ali and Abdulali 1945); Mulund, Salsette, Bombay, one on 23.xii.1943, SA (Ali and Abdulali 1945); Deccan, 'Very common in Satara, and undoubtedly breeds there (sic),' (Davidson and Wenden 1878); Dhule District, 'common' (Vyawahare 1992, Davidson 1882).

Grey-headed Canary Flycatcher has apparently expanded its wintering range into south Konkan since the late 19th century when it was unrecorded by Vidal (1880). It was recently recorded in south Konkan at Ratnagiri District (see above).

The previously given range (Grimmett et al. 1998, Kazmierczak 2000) for this species is south of Goa and it is also uncommon in Goa.

The following records are from Goa and the surrounding area: Supa, North Kanara (Karnataka), 'One specimen at Supa on 23.ii.1896,' (Davidson 1898); Bondla Wildlife Sanctuary (Goa), one between 29.xi-9.xii.1995 (Santharam 2003a); Bondla (Goa), November 1995, PW (Hill 1997); Bondla (Goa), one on 29.xii.1998, GF (Lainer 2004); Aguada (Goa), March 1994, Forster (Hill 1997); Aguada (Goa), undated (AP pers. obs.); Cotigao (Goa), one between 26.ii-10.iii.1995 AH (Lainer 2004).

Rufous-fronted Prinia *Prinia buchanani* has not been well documented in the Pune area although I had heard from Rahul Purandare (*in litt.* 17.ix.2003; pers. comm.

i.2005) that he had seen this species recently at Saswat-Dive Ghat. We had decided to spend a long half-day on 29.i.2005 to try and gather photographic evidence of pipit species, with an outside chance of verifying claims of Ortolan Bunting Emberiza hortulana, which have been claimed for this area. So I was pleasantly surprised when Rahul pointed out the song of the Rufousfronted Prinia and we managed to get good views. There were at least two birds singing. Unfortunately this species is incredibly shy at this time of year and I found it impossible to get a photograph. I thought that I might succeed in a second attempt. So on 5.ii.2005 I spent a whole day in the area and quite some time trying to get a shot, but I had to make do with digital sound recordings through the camera. With two people, one to help locate the bird, and the other with a good tripod, it would definitely be possible to get shots. But it does not allow close approach, although it will sing for fairly long periods from the top of small bushes if you keep your distance. I heard at least six individuals singing on my second visit. The habitat at Dive Ghat is a semi-desert grassland valley and although I spent the day at Bopdeo Ghat, also hoping to hear the bird, it was not present. The habitat at Bopdeo is similar but not so dry, with more long-grass and less cactus. In late Januaryearly February this species is unmistakable, especially when you are familiar with its song. Its tail has a clear white terminal band and the grey is much paler than Jungle Prinia sylvatica or Plain Prinia P. inornata and the rufous on the forehead is unmistakable. The song is sometimes introduced by a trill, but the main song is a fairly fast repetition (about 3 per second) of a two-toned double syllable "tuwee-tuweetuwee-tuwee" (the 'wee' higher toned than the 'tu'), which can be repeated for over a minute at a time.

This species is obviously a fairly common resident of Dive Ghat, which is the southernmost limit of its known range. Records from western Maharashtra are sparse but include: Pune University Campus radio telescope near Narayangaon, Junnar taluka (Pune District), about 15 on 28.xii.2003, RA (Prasad 2003); Manchar-Bhimashankar road, 20km before Bhimashankar, Junnar taluka (Pune District), about 15 on 3.xii.2004, RA (Prasad 2003); Saswat-Dive Ghat (Pune District), two in August 2003, RP (Prasad 2003); Mula-Mutha (Pune), one on 27.xi.1993, one on 30.xi.1993 (AP pers. obs.); Khamgaon (Pune District), 1987-1989, 'frequency?' (Purandar 1989); Pune, 'Occasional, resident' (Ingalhalikar et al. 2000-2001); Torangan (Nasik District) near Trimbak (Trimbakeshwar), about 15 on 25.i.2004, RA (Prasad 2003); Ellora Caves (Aurangabad District), two on 21.ii.1987 (Bradbeer 1987); Wadala near Belapur (Ahmednagar District), one specimen in BNHS collection (Abdulali 1986); Chembur (Bombay), one on 7.vi.1932 (Ali and Abdulali 1937a); Ahmednagar, undated (Fairbank 1876); Dhule District, very common, breeding June to October (Davidson 1882, Barnes 1890). Possibly declining. Un-recorded, but possibly overlooked by Vyawahare (1992) and Mahabal (1993).

Hume's Warbler Phylloscopus humei is more common than previously supposed and is probably a fairly common winter visitor throughout the Western Ghats of Maharashtra and Dhule District. There are also records from the Deccan at Nandur (?), Beed District and Ahmednagar (see below). I noted two at Sinhagad on 7.ii.2005. Recorded by others at: Bhimashankar (Pune District), undated, NJ (NJ 2.i.2002
<birdsofbombay@yahoogroups.com>); Rajgurunagar Sahyadri School, (Pune District), one possible seen on 21.x.2000, VS (Prasad 2003); Mahabaleshwar (Satara District), number unspecified but the third most common Phylloscopus sp., after Tytler's Leaf P. tytleri and Greenish P. trochiloides, in that order and more common than Sulphur-bellied P. griseolus, Dusky P. fuscatus and Western Crowned P. occipitalis, in that order, in a survey between 13-16.i.2001 (Dymond 2003); Mahabaleshwar 0.05 birds heard per minute in January and February (Price 1999); Karnala (Raigad District), 0.1 bird heard per minute in January and February (Price 1999); Sanjay Gandhi National Park (Bombay), one on 24.xi.2002, NJ (NJ 24.xi.2002); Suryamal (Thane District), one specimen in BNHS collection (Abdulali 1986a); Malegaon (Nasik District), two specimens from 27.ii.1948, one specimen from 28.ii.1948 'Common in the Surat Dangs in February 1948.' One specimen from 27.ii.1948 and one from 28.ii.1948 listed as inornatus in Museum of Comparative Zoology (MCZ database, Ali 1955); Nandur (?) (Beed District) and Ahmednagar, five specimens in the Natural History Museum, U. K., collected by Fairbank in 1874-6, who originally identified them as inornatus and

found them common (Mark Adams *in. litt.* 26.ii.2003, Pamela Rasmussen *in litt.* 29.x.2002, Fairbank 1876); Dhule District, common (Davidson 1882).

The following records are unspecified Yellow-browed / Hume's Warbler Phylloscopus inornatus / humei but are most probably humei, as inornatus is a vagrant to western India: Sinhagad (Pune District), one on 5.xii.1999, SS (SS in litt. 2002); Sinhagad one on 26.x.1986, one on 8.xi.1986 (Bradbeer 1987); Tamhini (Pune District), one on 21.xi.1999, SS (SS in litt. 2002); Bhimashankar (Pune District), one between 25-29.iii.1999, NJ (Pittie 1999e); Bhimashankar, undated (Gole 2000); Bhimashankar one between 28-31.xii.2001, NJ (NJ 2.i.2002 <birdsofbombay@yahoo groups.com>); Bhimashankar one on 24.i.1987, one on 25.i.1987 (Bradbeer 1987); Valvan-Lonavla (Pune District), one on 10.ii.2005. AP (Prasad 1995); Mahabaleshwar (Satara District), one on 16.xii.1993 (AP pers. obs.).

There are also the following records of P. humei from just south of western Maharashtra: Belgaum (Karnataka), one specimen undated. 'Probably, will be found hereafter to occur more or less abundantly throughout the region in suitable localities (western Maharashtra and northern Karnataka), as hitherto few collectors seem to have taken the trouble to collect specimens,' (Butler 1881); Baga (Goa), singles in iii.1993 (Willoughby 1996); Baga two heard on 12.i.1996, PH (Holt 2000); Agassaim (Goa), singles in xi.1994. 'Small numbers. probably overlooked,' (Willoughby 1996); Aguada (Goa), one on 15.i.1996, PH (Holt 2000); Bondla (Goa), one on 15.xii.1999 (Dennis and Dennis 1999).

Eurasian Blackbird Turdus merula nigropileus is a fairly uncommon breeding visitor to Maharashtra in the Western Ghats and Konkan although it is rare in Dhule District where Davidson (1882 and 1886) had only one record. In recent literature, Grimmett et al. (1998) and Kazmierczak (2000) have given the Maharashtra population as breeding migrants presumably based on the following statement on nigropileus by Ali and Ripley (1983), 'Birds from the northernmost part of the range...are migratory, ranging in winter...through the Western Ghats, etc.' The northernmost part of the range is not clearly defined but is more probably southern Rajasthan, Eastern Gujarat, the Vindhya Range and the Satpuras. Ali himself (Ali and Abdulali 1937) states that it is a 'regular non-breeding (i.e. October to March),' visitor to Salsette, Bombay, which is supported by Monga (2001) and Abdulali (1981a, 1981b). In the 19th century Butler (1881) records it as a permanent resident in the Western Ghats and adjacent forests 'being most abundant in the rains,' and Vidal (1880) found it common in south Konkan which is not within the known breeding range, the birds were presumably winter visitors. He is supported by Soman (1963), see below. This species is definitely present in winter in moderate numbers in the Western Ghats and Konkan. In previous years I had seen Eurasian Blackbird on many visits to Sinhagad (Pune District) and had not taken notes as it was fairly common there. I quickly located an individual on my recent visit to Sinhagad (Pune) on 7.ii.2005.

There are also the following previous winter records: Malegaon (Nasik District), two specimens from 25.ii.1948, one specimen from 28.ii.1948 (Ali 1955); Bhimashankar (Pune District), between 28-31.xii.2001 and between 25-29.iii.1999, NJ (Prasad 2003, Pittie 1999e); Sinhagad (Pune District), one on 10.xi.1994 and on several other occasions in the winter (AP pers. obs.); Mahabaleshwar (Satara District) between 14-18.xii.1993 (AP pers. obs.); Koyna Wildlife Sanctuary (Satara District), between 15-19.xi.1995, VS (Prasad 2003); Phansad Wildlife Sanctuary (Raigad District), February 2000 and / or 2001, BK (Prasad 2003); Guhagar (Ratnagiri District), one on 1.iii.1987 (Bradbeer 1987); Ratnagiri District 'common' between 7-9i.1963 (Soman 1963); Radhanagari Wildlife Sanctuary (Kolhapur District), on 21.xi.1995, VS (Prasad 2003); Panhala (Kolhapur), 'numerous' on 23.xii.2002, PJ (Prasad 2003).

Lesser Whitethroat Sylvia curruca is probably a common winter visitor to western Maharashtra. Several Lesser Whitethroat / Hume's Lesser Whitethroat Sylvia curruca / althaea individuals were observed on the recent visit to Pune, and all appeared to be the paler and less clearly marked Lesser Whitethroat but this needs further verification.

There are no specimens of *althaea* from Maharashtra in the BNHS collection, nor is *althaea* listed in Abdulali's Maharashtra list, although there are only four specimens of *curruca*, (Bombay 2, Nasik 2), in the BNHS collection (Abdulali 1981a, Abdulali 1986). The following works recorded both *curruca* and *althaea* and therefore should be reliable: Pune area both species common (Mahabal & Lamba 1987); Deccan both species common (Fairbank 1876); Dhule District *althaea* not as common as *curruca* (Davidson 1882).

Key to the Observers

AA-Anish Andheria, BA-Badruddin Ali, HA-Humayun Abdulali, RA-Rauf Ali, SA-Salim Ali, NB-N. Bhure, PB-Paul Bradbeer, SD-Shashank Dalvi, PG-Prakash Gole, SG-S. Gudsoorkar, AH-A.G. Hall, PH-Paul Holt, NJ-Nitin Jamdar, VJ-Vijay Joshi, BK-Bindu Kapadia, RM-Rashid Maxwell, RMO-Ram Mone, SM-Sunjoy Monga, AP-Anand Prasad, PJ-Praveen J., RP-Rahul Purandare, BR-Bishwarup Raha, SR-S. Ranade, SS-Sanjay Sondhi, KS-Kiran Srivastava, VS-Venkap Santharam, DU-D. Ugaonkar, PW-Paul Willoughby.

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Diversity and behaviour of waterfowl in Santragachi Jheel, West Bengal, India, during winter season Subhendu Mazumdar¹, Prantik Ghosh² and Goutam Kumar Saha²

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C antragachi Jheel is a 12.75ha wetland Situated beside the Santragachi Railway Station (S.E.Rly), on the west bank of River Ganga, in the vicinity of Kolkata (= Calcutta) city. It is surrounded by dense human habitations, railway yards and small-scale industrial complexes. In the centre of the water body there are several small islands. The maximum depth of water is 2m. The jheel has large trees along its banks, which provide shelter and food for many species of birds. Water Hyacinth (Eichhornia crassipes) proliferates in the jheel. The most noticeable threats to the wetland include industrial effluent from railway yards and industries and, domestic sewage from surrounding houses and nearby shops. The excessive growth of emergent and floating vegetation during certain seasons also affects the population dynamics of waterbirds.

The present study was conducted from October to April 2002-2003 and 2003-2004. A census of the birds was taken every fortnight. The total number of individuals of different species counted in single field through the telescope were recorded separately and later pooled together to obtain an overall estimate of species present in each month. Species diversity index and dominance index were obtained following Shannon Weiners' Diversity Index and Simpson's Dominance Index respectively.

During the study we recorded 27 species of waterbirds belonging to seven families, of which eight (29.63%) were migrants, 11 (40.74%) local migrants and eight (29.63%) resident (Table 1). The most abundant species was Lesser Whistling-Duck *Dendrocygna javanica* comprising 83.6-95.4% of total waterbirds counted, followed by Gadwall Anas strepera (5.3-8.4%), Northern Pintail Anas acuta (1.5-6.0%), Garganey Anas querquedula (0.6-3.9%), Cotton Teal Nettapus coromandelianus (0.3-1.5%) and Northern Shoveller Anas clypeata (0.1-0.8%), while others were present in less significant numbers.

Lesser Whistling-Duck and Gadwall were the first migrants to arrive, during last quarter of October when average temperatures ranged from 18.3°C (Min.)- 30.2°C (Max.). Their numbers peaked during December-January when average temperatures were 14.4°C (Min.) and 27°C (Max.). Their numbers gradually dwindled as summer proceeded (Table 1 and Fig. 1). They were followed by Northern Pintail and Garganey in the second quarter of November. Northern Shoveller Anas clypeata and Cotton Teal were recorded in significant numbers from the first quarter of December. The total population of the migratory waterfowl peaked during the last quarter of December and first quarter of January, with a dominance index of 0.81217 and 0.76827 respectively (Table 1 and Fig 2). In communities where one or two species contribute quite highly the dominance index is quite high showing values more than 0.5. In our study indeed Lesser Whistling-Duck shows maximum dominance among migratory waterfowl community in the pond. The birds began departing from the last week of January, when Lesser Whistling-Ducks left in large numbers and later, from the middle of February, Gadwall, Northern Pintail and Cotton Teal began to leave. In the first week of April only small flocks of Lesser Whistling-Duck, Garganey and Large Whistling-Duck Dendrocygna bicolor were left.

Lesser Whistling-Duck was the most abundant species and was evenly distributed over the entire jheel. During the day a considerable number of birds roosted on the islands. In the morning, most of the waterbirds swam about in small flocks, all over the pond. While they fed, there seemed to be a pattern of aggregation perhaps to avoid overcrowding and inter-specific competition. Gadwall were found near the northern bank, Northern Shoveller and Northern Pintail in the northwest of the jheel while Garganey and Cotton Teal concentrated at the southern end of the jheel. The eastern side of the jheel was completely covered by floating and emergent macrophytes and hence devoid of bird life. Diving ducks like Tufted Pochard Aythya fuligula and Ferruginous Pochard Aythya nyroca were generally found at the middle of the pond in deeper water. As the day progressed (12:0014:30hrs) most of the birds congregated on the islands. From 15:00-16:00hrs all the species of birds became restless, started swimming and were distributed randomly throughout the jheel and made short flights in small flocks over the water. Finally, at about 17:30hrs the first group of birds left the jheel and flew to a nearby paddy field for foraging. At the onset of twilight the entire jheel was almost empty except for a few Gadwall, Northern Shoveller, and Cotton Teal.

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List of waterbirds observed at Santragachi Jheel during winter season (Oct-Apr 2002-2003 and 2003-2004)

- 1. Great Cormorant *Phalacrocorax carbo* LM
- 2. Little Cormorant *Phalacrocorax niger* R
- 3. Indian Shag *Phalacrocorax fuscicollis* LM
- 4. Purple Heron Ardea purpurea LM
- 5. Indian Pond-Heron Ardeola grayii R
- 6. Median Egret *Mesophoyx intermedia* LM

- 7. Yellow Bittern Ixobrychus sinensis R
- 8. Chestnut Bittern Ixobrychus cinnamomeus LM
- 9. Lesser Whistling-Duck *Dendrocygna javanica* LM
- 10. Large Whistling-Duck *Dendrocygna bicolor* LM
- 11. Northern Pintail Anas acuta M
- 12. Gadwall Anas strepera M
- 13. Northern Shoveller Anas clypeata M
- 14. Comb Duck Sarkidiornis melanotos LM
- 15. Garganey Anas querquedula M
- 16. Ferruginous Pochard Aythya nyroca M
- 17. Tufted Pochard Aythya fuligula M
- 18. Cotton Teal Nettapus coromandelianus LM
- 19. White-breasted Waterhen Amaurornis phoenicurus R
- 20. Common Moorhen Gallinula chloropus LM
- 21. Bronze-winged Jacana Metopidius indicus R
- 22. Common Snipe Gallinago gallinago LM
- 23. Swinhoe's Snipe Gallinago megala M
- 24. Pintail Snipe Gallinago stenura M
- 25. Common Kingfisher Alcedo atthis R
- 26. White throated Kingfisher *Halcyon smyrnensis* R
- 27. Stork-billed Kingfisher Halcyon capensis R
- Legend: LM=Local migrant; M=Migrant; R=Resident.

0.14903

0.83407

18.3

30.2

0.19917

0.79329

18.0

30.0

Diversity Index

Dominance Index

Min. Temp. (in °C)

Max. Temp. (in °C)





Table 1														
Month-wise average counting of waterfowls in Santragachi Jheel during winter season, including Shannon Index, Simpson's Index,														
Minimum and MaximumTemperature(°C).														
	Oc	t	N	ov	De	с	Ja	n	Fe	eb	Μ	ar	A	pr
Species	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Lesser Whistling-Duck	566	91	1177	88.6	4893	89.9	5159	87.3	3543	83.6	2091	84.0	418	95.4
Gadwall	49	7.9	111	8.4	287	5.3	324	5.5	295	7.0	152	6.1	0	-
Northern Pintail	0	-	20	1.5	184	3.4	272	4.6	256	6.0	143	5.8	0	-
Garganey	5	0.8	12	0.9	32	0.6	38	0.6	41	1.0	36	1.5	17	3.9
Northern Shoveller	0	-	1	0.1	26	0.5	48	0.8	43	1.0	20	0.8	0	-
Cotton Teal	2	0.3	4	0.3	15	0.3	47	0.8	47	1.1	36	1.5	0	-
Large Whistling-Duck	0	-	2	0.15	4	0.07	8	0.14	4	0.09	3	0.12	3	0.69
Tufted Pochard	0	-	0	-	2	0.04	5	0.09	3	0.07	4	0.16	0	-
Ferruginous Pochard	0	-	1	0.08	2	0.04	5	0.09	3	0.07	3	0.12	0	-
Comb Duck	0	-	0	-	0	-	1	0.02	1	0.02	0	-	0	-
Total Count	622		1328		5445		5907		4236		2488		438	

0.19557

0.81217

16.2

28.5

0.23998

0.76827

14.4

27.0

0.28874

0.70839

18.2

30.7

0.290554

0.71379

18.8

33.3

0.088959

0.91236

25.4

37.1

Alpine Swift Tachymarptis melba: New to the Thar Desert of Rajasthan, India

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n the afternoon of 9.ix.2004, while driving from Jaipur to Tal Chhapar (Churu district, Rajasthan), we noticed a flock of 'large' swifts (Apodidae) dashing about at great speed near Nechwa (27°58'N, 74º70'E) in Churu district. We immediately stopped to watch the birds and HSS identified them as Alpine Swifts Tachymarptis melba, a species he had seen at various birdwatching destinations in Himachal Pradesh, Punjab and eastern Rajasthan. Realising the importance of the sighting, in that it was probably the first record of the Alpine Swift in the Thar Desert of Rajasthan, we watched the flock of c.20 birds with binoculars for about 15 minutes until they disappeared from view.

While they were hawking insects over fields of pearl millet *Pennisetum typhoides*, we were easily able to observe their brown plumage with contrasting white lower breast and upper belly. Most of the time they were flying c. 7-30m above the undulating ground. However, a few times some individuals descended to c. 5m and fortunately GB 'grabbed' these birds with his digital camera. One or two of the pictures came out reasonably well to show not only the conspicuous white belly but also the white throat patch, which latter is usually hard to discern in distant birds especially in poor light.

The Alpine Swift is resident but subject to seasonal local migration (chiefly during

the monsoon) in addition to very extensive and wide-ranging daily foraging peregrinations (Ali and Ripley 1983). It is found "locally in north and west Pakistan east to Bhutan; from south Rajasthan east to Andhra Pradesh, south to Kerala and Sri Lanka, subject to seasonal and altitudinal movements and wanders erratically over long distances," (Grimmett et al. 1998). Although the situation within India is "particularly confused", the race *nubifuga* from Himalayas is thought to winter in central India (Chantler and Driessens 2000).

The earlier record of Alpine Swift in Rajasthan is from Mt. Abu (Ali and Ripley 1983). Kazmierczak (2000) gives its distribution for Rajasthan in Hadauti region comprising of four districts of Kota, Bundi, Jhalawar and Baran. Although we are not aware of any records from Hadauti region of Rajasthan the species could occur as a passage migrant.

There are several unpublished records of the species from eastern Rajasthan. HSS and Per Undeland saw c.10 birds flying at Siliserh near Alwar on 1.iii.1998. They appeared from nowhere and disappeared just as quickly after hawking insects over the hilltops for a few minutes. Martin and Claudia Kelsey (2003) recorded 14 birds at dawn over Samode Fort, Jaipur district on 8.iii.2003. DD saw a flock of c.120 birds from the terrace of his house in Krishna Nagar, a residential area, about three kilometers from Keoladeo National Park, Bharatpur on 9.x.2003. The noisy flock was observed between 08:00-09:00hrs, hawking insects, *c*. 80m above the ground. Startled by the sound of a gong, emanating from a school, they stopped calling and scattered in different directions for a minute or so before resuming their activity.

The few records of this roving species, from autumn (September and October) and spring (March), would indicate it is a scarce / erratic passage migrant in eastern Rajasthan. They might belong to the race *T. m. nubifuga*, originating from the Himalayas, and wintering in central India (Chantler and Driessens 2000).

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White-headed Yellow Wagtail Motacilla flava leucocephala Przevalski) near Delhi, India

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Jackson (1965) reported seeing a male White-headed Wagtail *Motacilla flava leucocephala* on 11.iv.1965, "alongside the Agra Canal, which takes off from Okhla near Delhi during a "large-scale" Yellow Wagtail *Motacilla flava* migration. The only specimen of this race from the Indian Subcontinent is a bird that Hugh Whistler had obtained on 3.v.1913 in Jhelum district (Pakistan) (Ganguli 1975). Ali and Ripley (1987) state, that it may possibly be a winter visitor. Its occurrence in Pakistan "is distinctly rare and only occurs for a brief period on spring passage...Both H. Whistler and H. Waite collected a good series of specimens from these districts [Potahar, Salt Range and around Jhelum, and Attock (Campbellpur) districts]," (Roberts 1992). Roberts (1992) himself reported seeing "several individuals in full breeding dress on the 4th of May...on the shores of Rawal lake." Historical records from the Indian region fall between 11 April and 10 May.

On 10.i.2003, while watching birds in a flooded stubble field near the western Yamuna Canal, between Tihara and Malhala villages in Sonipat district, I spotted a single male White-headed Yellow Wagtail. The bird had a pure white fore-crown, head and nape, and greyish-white ear-coverts. It had almost moulted in to breeding plumage.

Alström and Mild (2003) state that "it probably winters mainly in India but the exact wintering grounds are not known." They also warn that, "the head pattern is highly variable...(and) individuals...are difficult to separate from the palest extremes of (*M. f.*) beema. Also beware of partly albinistic individuals of other subspecies."

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.









Two-note call of Red-whiskered 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 Bandicootrat 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 Elecocharis 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 Bandicootrats. 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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