

# ***TRAGOPAN***



**Newsletter of the  
WPA/BirdLife/Species Survival Commission  
Pheasant Specialist Group**

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## *Editorial*

This is my first attempt as *Tragopan* editor and I have taken some time to try and absorb the standards set and maintained over the years by my illustrious predecessors. Hopefully next issue will be on time!

Thanks go to Peter Garson for his invaluable inputs into the issue, to Phil McGowan and Peter Garson for help with editing, and to Eliska Robson for proof-reading the entire issue. I thank Stuart Marsden for his help in getting me started.

Finally I thank all who have contributed articles, news etc. to this issue, and hope more will follow for the next issue. Let us know about your activities in connection with pheasants and their conservation. Send in your contributions by email or any other suitable mode. *Tragopan* is available on the web at: <http://www.gct.org.uk/psg>.

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An Idu-Mishmi tribal (Arunachal Pradesh, India) with a fan made from Sclater's Monal tail feathers (Photograph by Rajiv Kalsi)



## *From the Chairman*

Our current priorities for surveys, research and conservation action are set out in the 2000-04 Action Plan, and my review of progress on all targets in China in the last issue of *Tragopan* (18, p.8-9) showed that after 57% of the time had elapsed, 69% of projects and 53% of specific actions had been initiated. As part of an imminent project management area on the PSG website, I intend to tabulate all such action worldwide, but I expect the global percentages to look much the same. The picture is less good in relation to targets specified for each threatened species in collaboration with BirdLife International in 2000 (see p. 24-39), but I will review progress on all these on the website also.

If you all choose to use these tables as a source of ideas for your next research projects, we will certainly achieve an impressive level of cover by the close of this five-year period in December 2004. In any case, two things are very clear as we approach the end of the fourth year of the present Action Plan span. A new edition will be required or we will run out of (planned!) things to do in 2005. I am still involved with WPA and the other Galliformes species SG Chairs in formulating a plan for the taxonomic and geographical shape of the next set of Action Plans (see p. 5), but they will need editors by early 2004, so I would like to hear from any volunteers please. This is a tough task but involvement will certainly enhance your CV!

The success of our two Action Plans in prompting work on the most urgent targets is widely disseminated (see Fuller, R.A. *et al.* (2003) *Biological Conservation* 112, 343-349) and acknowledged by IUCN. Partly in consequence we are soon likely to be involved with WPA and the PQF SG in piloting a new kind of Action Plan for the Species Survival Commission, if funding can be found.

In *Tragopan* 18 (p.3-4) I also highlighted progress on improving our

operational performance in areas of weakness identified through our early 2002 audit. We continue to make strides in most of the required directions. For instance....

- Nick Brickle (DEFRA, UK) has virtually completed a review of the status of the 25 Indochinese galliform species, identifying the most urgent priorities for more work.

And the general level of international interaction within Asia is increasing....

- In March, Rahul Kaul (WPA/SAFO, Delhi) and Rajiv Kalsi (MLN College, Yamuna Nagar, Haryana) from India helped S.U. Sarker (Dhaka Univ.) to run a field techniques workshop in Bangladesh.
- K. Ramesh (Wildlife Inst. of India) has been advising Poorneshwor Subedi (Inst. of Forestry, Pokhara) on his recent surveys of cheer pheasant in central Nepal, and hosted a visit to the WII by PS in August.
- PSG members in China, India, Myanmar and Thailand with a common interest in the distribution and status of Eastern Himalayan species such as Sclater's monal, Blyth's tragopan and Hume's pheasant are increasingly in touch with each other, with at least one joint publication in prospect.
- And I have just been encouraging more contact between researchers working on various subspecies of ring-necked pheasant from right across its enormous northerly range, in Iran, Turkmenistan, Georgia, Uzbekistan, Mongolia, China and Japan.

So our shared desire to move the 'centre of activity' of the PSG out of the West and into Asia, where, after all, 98% of our species live, is really becoming a reality. Perhaps the most tangible evidence for this is the recent appointment of Rajiv Kalsi as the new Editor of *Tragopan*, following a fine six-issue



stint by Stuart Marsden. On behalf of all our readers, I thank Stuart and Rajiv for their work.

Have a good read, and do please submit news, articles and letters for the next *Tragopan* issue to Rajiv at any time. A newsletter is only as good as its readers want

to make it (and this one seems to be pretty good, so please keep it up)!

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## *PSG Project round-up*

### Completed Projects

**Rahul Kaul** (WPA/SAFO, Delhi) and **Rajiv Kalsi** (MLN College, Yamuna Nagar, Haryana) visited **Bangladesh** from India in March, to help **S.U. Sarker** (Dhaka Univ.) in the running of a 7-day **training workshop in field survey techniques** for galliformes species. This was funded by WPA and attended by 23 people, both research students and Forest Department personnel. It included a field trip to Lawachara NP for 10 of the participants with guidance on how to produce a technical report on the results obtained there. This important initiative has paved the way for proposals to conducted baseline surveys in other protected areas thought to hold significant galliform populations.

A survey of **wildmeat extraction** in areas of Arunachal Pradesh, Nagaland and Mizoram (**NE India**) was carried out with WPA support in January-March by **Rahul Kaul, Hilaluddin Khan** (WPA/SAFO, Delhi) and **Dipankar Ghose** (Calcutta Univ.). A full report is awaited.

Surveys for **Elliot's pheasant** *Syrmaticus ellioti* in the eastern half of Guizhou province (**South China**) have been continued by **Liang Wei** (Hainan Normal Univ.) and **Li Zhumei** (Guizhou Inst. of Biology, Guiyang). The completion of a 12-month pilot project in April, funded by WPA, has revealed important new areas for the species at Yueliangshan in the south, and the adjoining area of Shiwandashan in northern

Guangxi. Yueliangshan is being advocated for provincial Nature Reserve status, and Mayanghe has been promoted to National Nature Reserve status, as a direct result of this project. Subsistence hunting is widespread, and commercial hunting is spreading, whilst primary forests are still being exploited for timber and fungi. But this pheasant appears to occur widely in eastern Guizhou, a fact not appreciated before this work began.

### Projects in Progress

In **Mongolia**, **Togtokhbaatar Buyant** (National Univ, Ulaanbaatar) has continued her work on the western subspecies of **ring-necked pheasant** *Phasianus colchicus hagenbecki* in the Hovd area, with WPA support. At her main study site (Ikh Aral) she caught four males and three females, equipping them with coloured plastic neck collars (supplied by the Game Conservancy Trust, UK) for later recognition. Males were crowing and wing-whirring from mid-May. Population census data were collected at four sites, as in 2002, but a proportion of the transects were visited on horseback this year in order to increase the effective strip width surveyed: TB could see further as she was higher up, and the birds are less alarmed by a mounted horse than a person on foot!

During late May and early June, **Poorneshwor Subedi** (Inst. of Forestry, Pokhara) led a team of 13 people to conduct a thorough re-survey of the distribution and abundance of **cheer**



**pheasant *Catreus wallichii*** in Dhorpatan Hunting Reserve, **central Nepal**. This work was jointly funded by the Oriental Bird Club and WPA. This area was previously surveyed by Tony Lelliott, then a M.Sc. student (Durham Univ., UK), and one of WPA's first employees. The new surveys covered all the 8 sites visited in 1981, as well as 7 more. Areas of forest and scrub have developed since 1983, when this area was given its Hunting Reserve status, whilst potato-growing and livestock grazing (some of it illegal) occur on a big scale in the spring and summer months. The team detected 70 calling sites for individuals or groups of birds, and it seems that the cheer pheasant is still widespread here. A full analysis, including a population estimate and a comparison of data obtained in 1981 and 2003, will be detailed in the final report.

The experimental provision of artificial nest platforms for **Cabot's tragopan *Tragopan caboti*** has continued into a second season, supported by WPA. In March **Deng Wenhong** (Beijing Normal Univ.) and colleagues erected 240 platforms at 10 sites within Wuyanling NNR in Zhejiang province (**Eastern China**). This year 16 platforms have been occupied by nesting females, and work continues to determine what proportion of the total population this represents, how

successful these nesting attempts are, and any particular characteristics of occupied platforms (height from ground, tree species, surroundings).

**Apirat Iamsiri** (King Mongkut's Univ. of Technology, Bangkok) carried out surveys for **Hume's pheasant *Syrmaticus humiae*** in two Wildlife Sanctuaries and 4 National Parks in **northern Thailand** during December-March, with support from his university and WPA. The places in which groups of birds were found were characterised by the presence of evergreen oak and pine trees and a sparse ground vegetation layer. Attempts to detect birds responding to call playbacks have so far been unsuccessful. Hunting appears to be a significant problem in the protected areas so far visited.

See also **Research Reports** on PSG projects on Hume's pheasant, Indochinese Galliformes, Sclater's monal and Blyth's tragopan (pp. 11- 12, 17 - 22)

## News from PSG

**S. Subramaniam** (AVC College, Mayiladuturai, Tamil Nadu, India) has submitted his Ph.D. thesis on **grey junglefowl *Gallus sonneratii*** ecology in the Western Ghats (Tamil Nadu, **South India**).

**K. Ramesh** (Wildlife Inst. of India) has submitted his Ph.D. thesis on the **ecology and distribution of koklas *Pucrasia macrolopha*, Himalayan monal *Lophophorus impejanus* and western tragopan *Tragopan melanocephalus*** in the Great Himalayan National Park.

**Dipankar Ghose** (Univ. of Calcutta) has submitted his Ph.D. thesis on the ecology

and distribution of three **tragopan species (*T. satyra*, *T. blythii*, *T. temminckii*)** in NE India.

**Natalya Marmazinskaya** (Zarafshan Nature Reserve) and **Leyla Belalova** (Zoology Dept., Samarkand State Univ.), have accepted membership of the PSG in recognition of their work on **ring-necked pheasant *Phasianus colchicus zerafschanicus*** populations in Uzbekistan, and especially in Zarafshan Nature Reserve, near Samarkand. (*See Tragopan 18: 21-23, March 2003*).



**Anwaruddin Choudhury** (Rhino Foundation, Guwahati, Assam) won the 2002 WildWings Conservation Awareness Award from the Oriental Bird Club. He is using this to work at village level and to produce a

booklet, focusing on Nagaland (NE India), home to at least 480 species including **Hume's pheasant** *Syrmaticus humiae* and **Blyth's tragopan** *Tragopan blythii*. (*OBC Bulletin* 37: 9, June 2003).

## Other News

In the southern USA, **Al Cummins** and **Wayne Hawkins** (WPA-USA) have been instrumental in securing the future of a **pure captive stock** of **red junglefowl** *Gallus gallus murghi* originating from India in 1960, by micro-chipping all individuals and establishing a studbook. (*Annual Review of WPA 2002/2003*, p.24).

**Palawan peacock - pheasant** *Polyplectron napoleonis* is still being collected in substantial numbers for meat and the pet trade, with one report alleging the rapid demise of 20 birds bought as pets by one person, and another of 30 for sale at one market. Peter Garson has asked Fauna and Flora International, which has a substantial presence in the Philippines, to investigate this further. (via John Corder, WPA).

**DNA profiling to help conserve species** (Tribune News Service, Shimla, August 28, 2003): Waking up to the dangers of genetic inbreeding amongst animals in captivity, the state wildlife authorities have decided to use DNA fingerprinting to keep a proper genetic record of the endangered species maintained for conservation.

The large-scale mortality of lions in the Renuka safari due to excessive inbreeding has opened the eyes of the department and forced it to take long-term steps to overcome the problem.

Initially, DNA profiling of species like monal, western tragopan, red junglefowl and cheer pheasant will be carried out. In the second phase, animals like musk deer will be covered.

The department has sent a proposal in this regard to the Central Zoo Authority, which has agreed to provide funds for it in principle. In all, DNA fingerprinting of about 60 selected birds will be carried out in the first phase.

These birds will form the breeding stock for the conservation of endangered species like monal, cheer pheasant and western tragopan. The breeding will be carried out ex-situ so that the birds can be released in the wild. Under the programme, the chicks bred in captivity will have the benefit of parental rearing in natural surroundings.

The western tragopan will be bred at the Sarahan pheasantry, the monal at the Kufri Nature Park and cheer pheasant at Chail. Big enclosures are being constructed at the three places to provide the required natural environment for ex-situ breeding.

Besides, red junglefowl will be bred to meet the requirement of medical research. Since there is not much of poultry farming in the state, the possibility of finding pure-blood red jungle fowl, particularly in interior areas, is high.

The red junglefowl will be trapped from the wild and after DNA profiling, only the birds with pure blood will be retained for breeding. The rest will be released in the wild.

*The Tribune*  
Friday, August 29, 2003, Chandigarh, India



## *News from PSG's three parents*

### **World Pheasant Association**

During the financial year ended on 30 April 2003, a total of 10 PSG-endorsed projects together received nearly £14,000 in **funding support** from donations to WPA (specifically for this purpose) by H. James Goodhart. Peter Garson offered his thanks, on behalf of the whole PSG, to HJG for this magnificent level of support for our efforts at the Chair's Advisory Committee meeting in July.

Preparations for the **International Symposium on Galliformes**, scheduled for 4-11 April 2004 in India, are now well advanced, thanks to work by all members of the International Steering Committee, but especially Rahul Kaul (South Asia Field Officer) and Nicola Chalmers-Watson (WPA, UK) and Pat Savage (WPA Administrator). This promises to be another truly international gathering of galliform experts, being the eighth in a series initiated in 1979, and the second in India after Srinagar in 1982. All information on this meeting, its associated pre- and post-symposium tours, and a Scientists' Training Workshop in Himalayan forest habitat, are posted on the WPA website at <http://www.pheasant.org.uk> (under 'Forthcoming Events') and the PSG website at <http://www.gct.org.uk/psg/>.

Peter Garson has been asked to stimulate more debate with WPA and SSC staff, and the other Galliformes SG Chairs, on the taxonomic, geographical and strategic scope of a **new set of Action Plans** to cover all threatened Galliformes species for 2005-09, following the current set of five for 2000-04. An emerging consensus will be sent to all five SGs' members for comment, so that editors for these new publications (which may be electronic only) can be appointed early in 2004, and then immediately start their work.

### **BirdLife International**

Alison Stattersfield at BirdLife's Cambridge Secretariat is leading the production of *The State of the World's Birds*, a new global survey which will include an **assessment of progress against targets set for all Globally Threatened Birds**, as previously published in their *Threatened Birds of the World* (2000), in the texts for all galliformes species are identical to those in the five Action Plans also published by IUCN and WPA in 2000. Philip McGowan has overseen the submission of assessments from all the galliformes species SGs. The PSG seems to have made rather modest progress against these targets, as detailed also in Chapter 3 of our current Action Plan. For our 23 threatened species, we have taken at least some work as listed on 36 specific actions from a total of 131 (i.e. 28%).

Over the past 18 months Stuart Butchart at BirdLife in Cambridge has been overseeing a comprehensive **revision of the IUCN Red List for birds** in preparation for a major review and re-analysis of global trends due for publication in the autumn of 2004 by the IUCN Species Survival Commission. Again Philip McGowan has managed this process for all galliformes species by acting as moderator of a galliform forum on BirdLife's website. The only really significant change in status requested for the pheasants was the de-listing of **imperial pheasant *Lophura imperialis***, following the recent acceptance of a paper suggesting that it is no more than a rare interspecies hybrid (Hennache, A. *et al. Biological Journal of the Linnaean Society*, in press).

BirdLife next global meeting, the **World Bird Congress** is being held in February 2004, and Philip McGowan is coordinating any contributions from the Galliformes species SGs at this event.





## Species Survival Commission

Mariano Gimenez-Dixon (Species Programme Officer – Fauna, IUCN Gland) was able to attend the PSG Chair's Advisory Committee in July, and briefed those present on a number of global events and initiatives.

New staff members have been recruited to accelerate the implementation of the IUCN **Species Information System (SIS)**, which is supported by Oracle. The Species Programme expected to load information on threatened species which it already possesses (e.g. Red List, Action Plans) before SG Chairs or their nominees will be given access to continually update the SIS.

The **World Parks Congress** (8-17 September 2003) included a session on gap

analysis and protected area coverage, on which published output can be expected later.

The **World Conservation Congress**, including the IUCN General Assembly and a satellite Species Survival Commission meeting, is scheduled for 9-20 November 2004 in Bangkok. A major gathering of SG Chairs or their nominees for a workshop on SG roles and operation has been suggested as part of the SSC meeting.

Sue Mainka (Head, IUCN Species Programme) has been in discussion with Philip McGowan about a new type of **action-orientated and regional Action Plan**, with a view to using galliformes species as the main vehicle in a pilot publication, hopefully in time for discussion at the World Conservation Congress.

## *WPA India Highlights*

November 2002 to April 2003

### National Seminar on Conservation of Red Junglefowl

India is recognized as the country of origin of several species of wild flora and fauna. Among these, one bird stands out in a class of its own, as its record is certainly unique and unsurpassed. This is the red junglefowl (*Gallus gallus*), popularly called jungli murghi, which is the real ancestor of all diverse forms of domesticated chicken throughout the world and thus the founder of the worldwide multi-billion poultry industry of the present time. From this single species - with its five sub-species - has arisen literally a phenomenon of great benefit to humankind. In fact, no other bird has proved so useful in human history.

In recent years, the morphological characteristics of the wild red junglefowl have been a matter of considerable attention and debate among the scientists. As a result, two features are being considered critical in

determining the purity of the wild birds. These are: (a) a complete moult to an overall dark/black 'eclipse' plumage by the male following the breeding season (generally June-September), and (b) virtual absence of a comb in the adult female. Lately, some western scientists have asserted that these critical features of the pure wild fowl have been lost over time due to hybridization and contamination with domestic fowl, and hence perhaps wild birds of the species having true genetic purity may no longer be in existence anywhere. The debate on the subject is still inconclusive and much scientific work is required before coming to a firm conclusion in the matter.

As a result of WPA India's persistent efforts to highlight importance of this pheasant species, the Central Department of Animal Husbandry & Dairying was persuaded to focus attention on this aspect. The Central Avian Research Institute (CARI), which shares a common



campus with the Indian Veterinary Research Institute (IVRI) in Izatnagar near Bareilly, was asked to take the lead. CARI organised the first National Seminar on Conservation of the Red Junglefowl on 11-12 March, 2003. The President, who contributed two lead papers titled: 'Pheasants of India' and 'Red junglefowl – The Wonder Bird', represented WPA India. The President also made a special illustrated presentation on the Pheasants of India at the Seminar. Rahul Kaul also participated in the Seminar and contributed a paper.

In response to the interest generated, a second Seminar is being planned in Delhi in the near future. CARI has also prepared a project proposal on 'Genomic Studies on the red junglefowl for its Characterisation and Conservation'. Other WPA India initiatives on the red junglefowl underway involve other institutions / agencies, including the Ministry of Environment & Forests, Central Zoo Authority, Project Tiger, IVRI Mukteswar, BNHS and the Association of Zoo and Wildlife Veterinarians.

### **WPA India Meeting with Chief Minister of Assam (Focus on Key States)**

An important ongoing activity is to develop state-wise focus in respect of the identified States – Arunachal Pradesh (11 species), Himachal Pradesh, Uttaranchal, Jammu & Kashmir (7 species each), Sikkim, Nagaland, Manipur, Tripura, West Bengal and Assam (4-6 species each).

On Tuesday, 29 April 2003 the President and General Secretary, WPA India met the Chief Minister of Assam, in Delhi. The Chief Minister was briefed by the WPA India President on the need for a special focus on pheasants in Assam, particularly in the areas bordering Nagaland, Arunachal Pradesh and Bangladesh. He was pleased to learn of the appointment of Dr Anwaruddin Choudhury as the North-East Representative of WPA India and promised full co-operation and support of the State Government to WPA India's initiatives in the region.

## *Comment*

### **Galliformes and reintroductions**

There is an increasing interest in (and use of) reintroduction as a conservation tool in many different conservation contexts, and it currently includes release of captive bred birds as well as translocation of wild ones. It is being used for highly managed species that are not globally threatened (such as some of the grouse species), as well as highly threatened species, such as the critically endangered White-winged Guan in Perú and the critically endangered Malau or Niuafou'ou Megapode in Tonga. Both of these releases have resulted in wild reared young.

Because of this increasing interest, WPA has a responsibility to provide high

quality guidance on all of the factors that should be taken into account for releases, and what is considered to be best practice. To do this, WPA is in discussion with the Reintroduction Specialist Group of SSC to develop guidelines that take into account the specific issues that are important for Galliformes. Information is available in IUCN's general guidelines on the SSC website, as well as guidelines that have been developed specifically for the primates. They can be found on the Reintroduction SG 'Resource CD-Rom' at [http://www.iucn.org/themes/ssc/sgs/rsg/rsgcdr\\_om/CITES\\_START.htm](http://www.iucn.org/themes/ssc/sgs/rsg/rsgcdr_om/CITES_START.htm), which is on the RSG part of SSC's website.

**Philip McGowan.** *Conservation Director, World Pheasant Association*



## ***New Project***

### **The food and feeding ecology of grey junglefowl, *Gallus sonneratii* at Theni Forest Division, Westrn Ghats, Tamil nadu.**

The University Grants Commission, New Delhi, India has sanctioned an amount of Indian Rs.2,66,260/- to M.C. Sathyanarayana (Division of Wildlife Biology, A.V.C. College [Autonomous], Mannampandal, Mayiladuturai 609 305, South India. Email: mcsathya@yahoo.com) to conduct a research project on the food and feeding ecology of grey junglefowl.

The project is aimed at the following specific objectives:

1. To determine food and feeding preferences of the grey junglefowl, by direct observations in the field, and faecal analysis.

identify its conservation needs, the World Pheasant Association formulated a conservation strategy for the grey junglefowl, which recommended an intensive study on this near threatened species. Present literature survey also shows that no long-term scientific

2. To quantify the availability of preferred food items (plant and animal) in different habitats and different seasons of the year.
3. To assess the interrelationship of food availability and habitat preference of the grey junglefowl.

The grey junglefowl populations have declined throughout its endemic range in the peninsular India. Much of its decline is due to habitat destruction and degradation as a result of the growth of human population with its attendant demand for agricultural land and fuel.

The grey junglefowl has also suffered decline due to the demand for its characteristic neck feathers. In order to work has been carried out on the food and feeding habits of the grey junglefowl.

On the basis of information generated in this project, recommendations will be made for management and conservation of the grey junglefowl.

## ***Research Reports***

### ***Distribution, habitat use and human impacts on Hume's Pheasant in northern Thailand***

Surveys were carried out in several protected areas of northern Thailand. At least three groups of Hume's pheasants were observed at Doi Chiang Dao Wildlife Sanctuary, two families at Mae Lao-Mae Sae Wildlife Sanctuary, and one family at Doi Suthep-Pui National Park. Most of the observations were in evergreen forest. Analysis suggested that

they prefer areas with short ( $37.7 \pm 23.7$  cm), low-density, ground vegetation within evergreen forest. Areas with significant amounts of pine may be important because it is usually associated with less dense ground vegetation, but it is unclear at this time whether pine offers additional habitat features.



Surveys will be repeated during rainy season from June to September 2003. Illegal hunting is probably a serious threat to the species, especially at Doi Inthanon National Park. A general model for predicting the species

distribution using remote sensing and GIS is currently in progress.

**Apirat Iamsiri and George A. Gale**  
*King Mongkut's University of Technology*  
*Thonburi, Thailand*

### ***Ground nesting by Temminck's tragopan***

Chinese ornithologists have discovered two ground-level Temminck's tragopan nests in central China, of which there has been only one previous report. The two nests were discovered in May, 2002 in the Xiaoshennongjia region of Hunan province. Both nests had four eggs in them. The date of discovery, altitude and egg dimensions are as follows:

Date	Altitude	Egg dimensions
May 3, 2002	2550 m.	17 x 16 x 6 cm
May 15, 2002	2050 m.	20 x 20 x 5 cm

Nest 1 was found in secondary Azalea Fir, on a large boulder, next to a three-metres-high deciduous tree with the nest close to the roots. Nest was made of twigs and moss, and was surrounded by a clump (2m x 1.5m) of Arrow Bamboo, which concealed the nest extremely well.

Nest 2 found on a three-metres-high ledge, among primary pine, surrounded by dense bamboo. The nest was made of twigs and moss. The hen bird was found close by, and eggs were close to hatching. Brief article says only previous record of ground-nesting Temminck's tragopan was reported in survey of Gaoligong Shan, Yunnan, no details.

*Source: Wang Nan, Zhang Zhengwang, Zheng Guangmei, Discovery of ground nests of Temminck's Tragopan in Xiaoshennongjia, Chinese Journal of Zoology, 2003, vol 38, p.13 [in Chinese].*

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### ***Western tragopans in Himachal Pradesh, Northern India***

In November, I visited Shimla, where the Wildlife Division of the Himachal Pradesh Forest Department has its headquarters. My visit coincided with a meeting of all the senior officers, and one of the major items on their agenda was a plan for the conservation breeding and *in situ* survival of four endangered species within the State. These are musk deer, Himalayan monal (the State Bird of Himachal as well as of Nepal), cheer pheasant and western tragopan.

The Great Himalayan National Park is situated within Himachal, and the Forest Department has several captive pheasant collections, mainly of rescued birds. The western tragopan has only once been bred in captivity – at Sarahan, which is situated close to the edge of the Great Himalayan National Park. One male was bred there in 1993, but the species has proved difficult to maintain and has never been bred again. At present, there are only three western tragopans at Sarahan.





### View of the Himalayas from Sarahan Pheasantry in November

The Principal Conservator of Forests and Chief Wildlife Warden, Dr. Pankaj Khullar, invited me to visit Sarahan, an eight hour car journey from the State capital, Shimla. The village of Sarahan has a spectacular setting, looking out onto the Himalayas. It is the site of a very famous temple, which is visited by large numbers of pilgrims each year.

Many visitors then take a walk to the nearby pheasantry, which is situated on a hillside above the village and can only be reached by walking up a fairly steep mountain path.

I was welcomed by the Divisional Forest Officer in Charge of Sarahan, Mr B L Negi, and by Mr Alam Singh, who has worked at the Pheasantry for about 18 years. They have had great success in breeding white crested kalij, Himalayan monal and koklass despite working in a very isolated spot with no electricity or access to any of the pheasant feeds that we in the west take for granted. Most incubation is done under broody hens.



### Alam and Negi with Temminck's Tragopan at Downlands' aviaries

At first sight, the male western tragopan is a spectacular bird, with a bright scarlet breast almost glowing above the mainly black and white plumage. It is a little smaller than a Satyr – about the same as a Temminck's, and is far more impressive than I expected. Alam Singh said that it displays quite readily to its hen during the breeding season. I feel sure that a number of WPA delegates to the International Symposium in India in April 2004 will wish to visit Sarahan to see this species and also



to see some of the wild pheasants that live in the area.



**Western Tragopan male at Sarahan Pheasantry, Himachal Pradesh**

I only had time to spend one day at Sarahan, but on my return to Shimla, Dr Khullar and other Forest Department Officers were keen to utilise WPA's experience to establish successful conservation breeding programmes for their threatened pheasants. The Department has now formulated a Core Committee to oversee the provision of new breeding facilities and this will be done in

conjunction with WPA, WPA-India, the Wildlife Institute of India, the Indian Central Zoo Authority and the Pheasant Specialist Group. These plans will also incorporate a strategy for conserving wild pheasants, which continue to suffer from hunting and poaching.

As part of this project, the two officers in charge of Sarahan Pheasantry visited the UK for two weeks in January for training in conservation breeding. WPA is extremely grateful to the Pheasant Specialist Group for making this training possible. It was great to see how enthusiastically Mr Negi and Mr Alam Singh set off on their return flight to India, determined to put into practice what they had learned during their UK training. I feel sure that, in the coming years, we will hear and see a great deal more about the conservation breeding of pheasants and the *in-situ* conservation efforts of the Himachal Forest Department.

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## ***Survey for Hainan peacock pheasant in Hainan Island, China***

During surveys from November 2002 to June 2003, we found following important sites for the Hainan peacock pheasant *Polyplectron bicalcaratum katsumatae* on Hainan Island, China.

1. Nanweiling forest: It is a historical habitat for pheasants and is located at northwestern Tunchang county. Two birds were recorded in our survey. The Forest Department of Hainan Province has decided to upgrade Nanweiling forest to Provincial Nature Reserve (PNR).
2. Wanling forest: It is located in Qiongzong County, Central Hainan where two birds were recorded.
3. Mihouling forest: It lies in Ledong County,

Western Hainan, where we found four birds.

4. Yinggeling forest: This forest lies in the Nankai County, Western Hainan where at least 4 birds were found during three-day survey. In this area of primary forest, a PNR will be established, which will be the largest PNR in Hainan.

- (5) Limushan National Forest Park: It is located in Qiongzong County, Central Hainan where one bird was found.

- (6) Nanmaoling forest: We recorded three birds in this area, which lies in Qiongzong County, Central Hainan. Illegal hunting in this area was very severe because it was not a PNR. The Nanmaoling forest will become a PNR



in the year 2003.

(7) Bawangling NR: In March 2003, three birds were recorded in Bawangling NR by Liang Wei, Wang Jichao and Ben King, and one nest was found by Chen Qing. In May 2003, three birds were photographed.

This work was part of our programme in Hainan Normal University, and funded by Hainan Province Key Discipline in Ecology. We thank the Forest Department of Hainan Province for their support in fieldwork.

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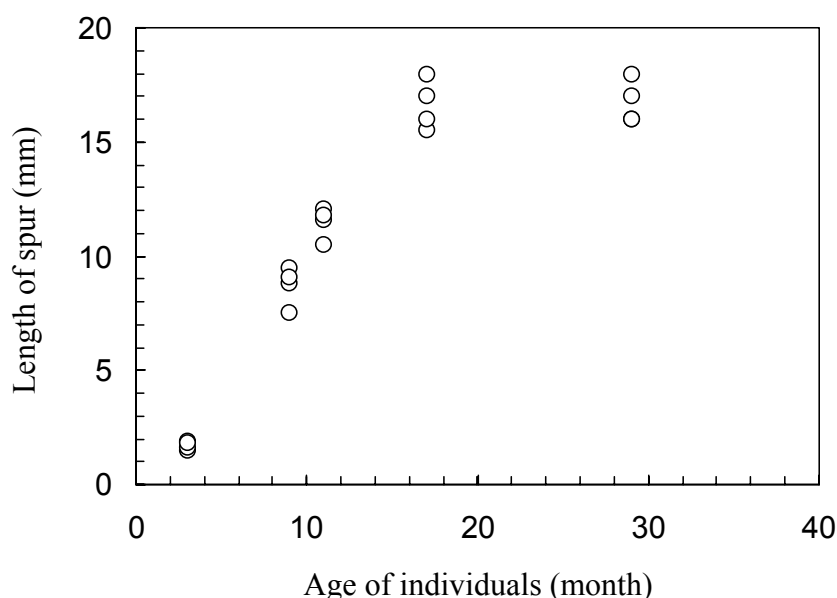
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### ***Growth of spurs of male Tibetan eared pheasant *Crossoptilon harmani*, under captive conditions***

The spurs located on male pheasant's legs, as a special morphological trait, are assumed to be a weapon in intrasexual fighting (Davison 1985, Grahn *et al.* 1993). Yet they could be a reliable signaling of individual quality and thus serve as crucial cues used by females in mate choice (Grahn and von Schantz 1994, Mateos and Carranza 1995). Also, they are an

indicator to estimate age and sex of individual pheasants (Mottl 1970, Koubek and Hrabec 1984, Gao and Liu 1992, Lu 1995). Tibetan eared pheasants, *Crossoptilon harmani*, are sexually monochromatic in plumage pattern, socially monogamous and during the non-breeding seasons they are highly gregarious (Johnsgard 1999).



**Figure 1. Growth patterns of spurs of four male Tibetan eared pheasants in captivity.**



This note provides data on spur growth in Tibetan eared pheasants. The information provided may be useful in future research on social behaviour and population demography of this species, as well as in ageing the specimens in museum collection. In 1999, we took fresh eggs and newly-hatched chicks of Tibetan eared pheasant from its native habitats (Lhasa Mountains, 4200 m above sea level) to Beijing zoo and succeed in establishing the first captive stock in the world. We measured the spur length (to 0.1 mm) of four males at ages of three, nine, eleven, seventeen and twenty-nine months. The growth patterns of spurs are shown in Figure 1.

The spurs were like small knobs on very young chicks, and began to grow when the chicks were about two months old. The juveniles at an age of 11 months had significantly shorter spurs ( $11.5 \pm 0.3$  mm) than those at 17 months ( $16.6 \pm 0.6$  mm; Paired t-test,  $t = 16.57$ ,  $df = 3$ ,  $P = 0.005$ ). However, spur length of the latter was almost the same as that of 29 month old males ( $16.8 \pm 0.5$  mm; Paired t-test,  $t = 0.16$ ,  $df = 3$ ,  $P = 0.88$ ). This suggested that the growth of spur in the eared pheasant had been almost completed by about 15 months. In the Ring-necked Pheasant *Phasianus colchicus*, spur length does not change between the second and third year (Mateos and Carranza 1995).

Sexual maturity in Tibetan eared pheasants is reached at two years of age. In their native habitats, each pair produces one brood yearly, with egg-laying occurring between mid-April and early-June, and hatching between early June and mid-July (Lu and Zheng, in press). Before early winter (December), young of the year are easily identified by their body size and plumage. After that these body characteristics become unsuitable for ageing and sexing the eared pheasants in which sexual dimorphism is lacking. The result of this study showed that the spurs of 11 months old juveniles were not fully grown and were significantly shorter than those of 17 months old. Thus, during the late winter to spring period when the first-winter juveniles are younger than 10-month old, the

spurs could be used to distinguish juvenile males from adult ones.

The adult females also had spurs ( $3.1 \pm 0.2$  mm) that were shorter than those of 11 months old juveniles (Independent sample t-test,  $t = 21.47$ ,  $df = 6$ ,  $P < 0.001$ ), which allowed us sex the eared pheasants based on the length of spur. In particular, we found during observations of a marked population that it is possible to age and sex the eared pheasants by directly estimating the difference in length of their spurs from a distance of less than 30m during the mating period (late March to early April). The current results support such field method of estimating age and sex. We also suggested that the spurs could be used to age eared pheasant specimens in museum collections. However, the characteristics are unsuitable to divide adult eared pheasants into yearly age-classes.

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### ***A review of the status and conservation of Indochinese pheasants, partridges, quails and francolins***

This review of the status of the 24 species of pheasant, partridge, quail and francolin that exist in Laos, Vietnam, and Cambodia is nearing completion. So far a detailed review has been made of all published records of all Galliform species in Indochina, including material in the 'grey literature'. Records have been collated into summaries of distribution for each species, details of any known habitat associations, apparent population trends and threats. Based on these findings a strategy of priority actions has been drafted. This

highlights key species and key habitats and areas for galliform conservation within the region. It also includes recommendations for further research and policy development work that is needed. It is hoped that a final version of the review will be submitted for publication in the coming months.

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### ***Reflective ribbon – a device to protect crops from Indian blue peafowl *Pavo cristatus****

The recent news about several peafowl found dead in India has once again brought the issue of public awareness into focus. The most plausible cause of these deaths appear to be due to pesticide poisoning mainly by consumption of treated seeds but this needs to be confirmed. Such incidents of peafowl deaths have occurred in the past. Some reports also appeared in certain sections of the press that due to such deaths, peafowl have been brought to the verge of extinction. This is an

overstatement as there are sizeable numbers of peafowl populations surviving in India. However, threat from pesticides may threaten the survival of the graminivorous birds in future. Studies elsewhere have implicated pesticides as one of the main factors for the decline of species like partridges.

Here is an urgent need to conduct investigations on how severe the affects of



pesticides are on our animals and what can be done to mitigate or reduced these problems. In addition farmers should be educated about the indiscriminate use of pesticides and their effects (Kaul 2002).

Instead of using pesticide treated seeds, which kill the birds, farmers can be advised to use reflective ribbons to scare away birds from their crops. The All India Coordinated Research Project on Agricultural Ornithology (AICRP) has developed certain bird scaring devices and has recommended them to farmers for protecting crops from bird damage. Reflective ribbons can be used to scare away the birds from crops like sunflower, maize, guava, grapes etc. and fish ponds. However, this scaring device has not been used for peafowl in India.

The reflective ribbons are made of polypropylene and are coloured red one side and silvery-white on other side. These colours make the ribbons highly reflective and they shine brightly in the sunlight. The ribbons are fixed with the help of poles at a height of about one foot above the crop level. During

daylight hours, bright reflections from the ribbons and humming noise produced as the ribbons flutter about in the wind scares the birds from the field. The cost of one 100 meter long roll of reflective ribbon is only Indian Rs. 45 (US \$ 1).

The reflective ribbons were tried by farmers in the villages of Viralimalai area who were using crackers, audio cassette tapes and dogs to scare the peafowl for the past many years. This is probably the first time that reflective ribbons have been use to protect crops from the peafowl.

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## *Some new notes on Sclater's monal nest*

During surveys in 2001 and 2002, we studied the movements of one small population of Sclater's monal. We especially monitored the movements of three chicks, which had just learnt to fly. Subsequently in May 2002, the chicks were found roosting with a hen on a cliff. In the spring of 2003, we conducted an intensive search for 23 days in the home range of the Sclater's monal population. On 6 April, 2003, we found one nest with a hen incubating the eggs.

### **Nesting site – location, topography and habitat**

The nest was located at 25° 41' 54.9" N and 98° 44' 47.0" E, at an altitude of 3440 m on a western slope with a gradient of about 60 degree. The main vegetation at the nesting site was arrow bamboo bush.

The nest was situated on a small platform at a height of 3.8 m from ground on the middle portion of a huge rock, about six meters high and three meters wide.

### **Nest – measurements and materials**

We observed the nest on 11 April 2003 and measured it when the hen was away for feeding. The nest was a small elliptically shaped hollow in the ground. Its depth was 8 cm. with a diameter of 30 cm along the longer end and 21 cm. along the shorter end.

The nest was lined with yellow coloured soft grass and some bird feathers. There were small pieces of egg shell scattered inside and around the nest.





**Nesting habitat of Sclater's monal**



**Female Sclater's monal incubating in the nest**





**A Sclater's monal male**



**Sclater's monal eggs in the nest**

**Eggs** We measured the two eggs in the nest and marked them on the shell with a pencil. The eggs measurements were as follows:

	Length (cm)	Breadth (cm)	Weight (gm)
Egg A	7.10	4.73	82.0
Egg B	7.12	4.79	86.0

**Incubation** After the nest was located, we observed the incubation behaviour of the hen for 27 days. The hen left its nest for feeding at 2-3 day intervals. The two eggs hatched successfully on 3 May 2003.

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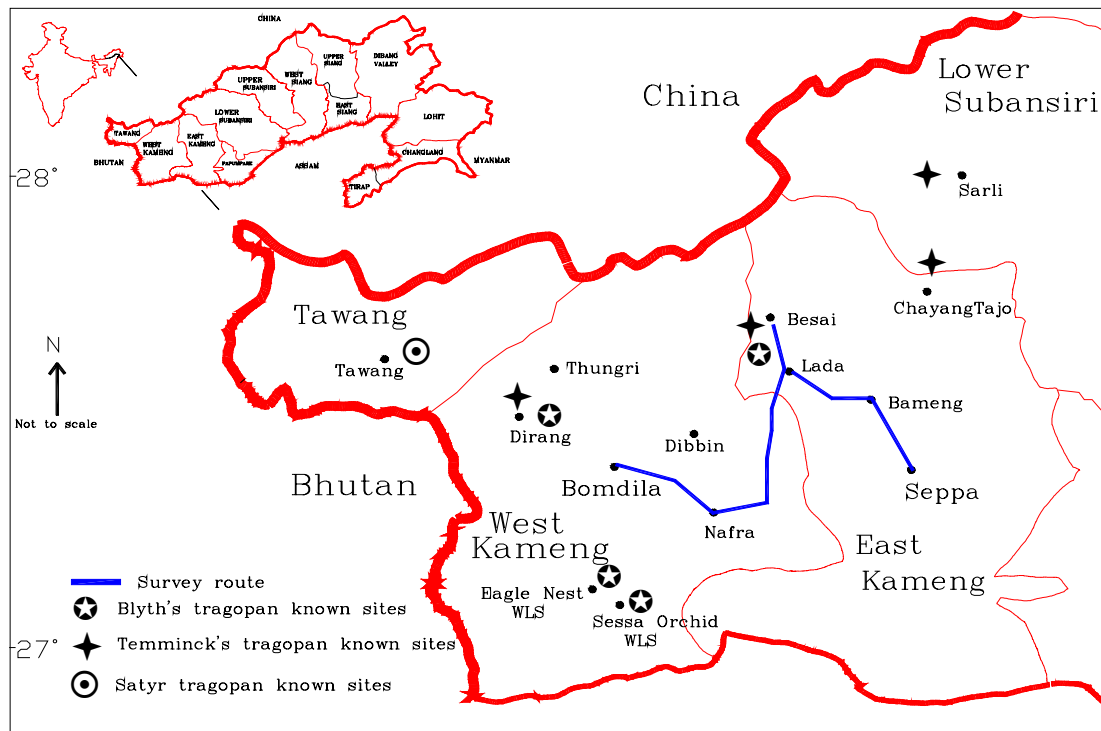
### ***Record of Blyth's tragopan *Tragopan blythii* from the Dafla hills, Western Arunachal Pradesh, India***

In the *Tragopan* 17 (October 2002) issue I reported the presence of Blyth's tragopan *Tragopan blythii* in the Eagle Nest Wildlife Sanctuary (ENWLS) and Dirang locality in western Arunachal Pradesh (Kumar 2002). The skin of a male of this species was also reported from the Sessa Orchid Sanctuary adjoining the ENWLS (Choudhury 2000). Prior to this, the only confirmed record for this species in western Arunachal Pradesh was from the Dafla Hills more than a century ago (Cran 1887). Blyth's tragopan is restricted to the Eastern Himalayas Endemic Bird Area (Stattersfield *et. al* 1998) and occurs from the mountains of eastern Bhutan, northeast Indian States of Arunachal, Nagaland and Mizoram, to the extreme south-eastern Tibet and north-west Myanmar (McGowan and Garson 1995).

There are recent records from Mizoram, while in Arunachal Pradesh it is known from only a few sites. Ghose and Sumner (1997) attributed its apparently patchy distribution, especially in Arunachal Pradesh, to a lack of survey coverage.

In April 2003, I revisited western Arunachal Pradesh for an Important Bird Area survey. The Lada area (1500m), a remote border post in the East Kameng district, was of specific interest. Located in the Dafla Hill range, this site has never previously been visited by biologists and information on galliforms there is lacking. The approach to Lada is only possible on foot, and it took a four-day trek starting from Nafra in the





**Figure: Confirmed tragopan sites in Western Arunachal Pradesh**

neighboring West Kameng district.

The Nishi and Miji tribes inhabiting the area readily recognised Blyth’s tragopan from the pictures shown and the species is known to them as “*Preeshck Choo*”. Unlike in the other areas I surveyed before, local people here only recognised Blyth’s and did not know of other tragopans in the area. On the day of arrival at the Lada village, I came across two complete skins of Blyth’s tragopan being sun dried in a shop. The yellow throat lappets in the skins, characteristic of this species, had not turned fully black and were faintly visible suggesting the birds had been killed recently. The birds were snared in the mountains higher up beyond Lada and the skins were for sale at Seppa, the district head quarter at Rs.100 per skin. As there is no representation of Blyth’s tragopan skins from Arunachal Pradesh in museum collections I collected the skins for the Bombay Natural History Society (BNHS) Museum, Mumbai. Just when I was feeling happy on finding Blyth’s tragopan in the area,

I came across a local man at Lada who showed me two more tragopan skins, rather pieces of skins that had been destroyed by rats. One of the skins was of Blyth’s and the other turned out to be that of Temminck’s tragopan *Tragopan temminckii*. Presence of Temminck’s has been recorded from Dirang locality, which lies just west of this area but what was surprising was that locals here failed to recognise this species. Even after showing the differences in the colour pattern in the skins to the local man, he failed to find any distinction between the two species and referred to the Temminck’s also as “*Preeshck Choo*”. His view on the colour difference was that the bird changes colour as it grows older. These birds were also snared from the mountains higher up beyond Lada and the skins were also up for sale. It is not known whether the birds were snared in the same area, though it is less likely. It is also not known whether they coexist here.



Large stretches of pristine untouched forests occur in the mountains beyond Lada, and due to the presence of a large number of high snow covered peaks, the area has remained remote. The Kameng, a major river in the state, originates from one of the highest peaks in Arunachal Pradesh called Kangto (7087 m). The presence of extensive habitat and the remoteness support good populations of galliforms in the area. Cran (1887) reported that the local people in the Daffla Hills considered Blyth's tragopan to be "very common on the lower ranges" in the late nineteenth century; the exact location of this site is not clearly known. In Lada and the neighboring areas local people reported Blyth's tragopan to be commonly found, especially in the mountains beyond Lada. The species has certainly declined in the area due to the heavy hunting pressure for pheasants and the disappearance of habitat due to the intensive shifting cultivation. It was learnt from local people here that there is a steady demand for bird skins especially that of monal, tragopans and hornbills. Blyth's tragopan along with other galliforms will probably continue to survive in the mountains beyond Lada simply because of the extreme remoteness of the area.

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