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### WPA News 43 (1994)

World Pheasant Association

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# WPA



# NEWS

No.43

February 1994



*The International News of the World Pheasant Association*



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**WPA NEWS NO 43**  
**Editor: Derek Bingham**

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**FORTHCOMING EVENTS**

<b>1994</b>	
<b>16-17 April</b>	WPA/Aviornis Social Evening and Avicultural Open Day, Tropical Bird Garden, Rode
<b>Sept</b>	Third International Cracid Symposium, Houston, USA
<b>2 Oct</b>	WPA International AGM
<b>1996</b>	
<b>Jan</b>	Pheasant and PQF Symposium, Malaysia

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<i>Front cover:</i>	<i>Red Grouse wood caring by Larry Scott (see page 35)</i> <i>Photo: Jean Howman</i>
<i>Back cover:</i>	<i>Cheer Pheasant with pen-reared chick (see page 8)</i> <i>Photo: Jean Howman</i>

## CHAIRMAN'S REPORT

Edward Dickinson

When I wrote to you in the November WPA News, I promised that you would receive a Consultation Draft of the revised rules with this WPA News. I am delighted to tell you that thanks to the hard work of the Rules Committee, chaired by David Kinsman, this is a promise we have met. If you have comments or concerns about the changes please write to me at Headquarters by the end of March. We shall discuss your inputs at the April Council Meeting.

In the enclosed Bulletin from WPA-UK are comments thanks to Paul North, about the rule changes addressed to UK members; in sum, these give assurances that UK members interests have been well protected.

A word therefore to members overseas. Members not involved with local chapters will continue to be members in the fullest sense of the term -- they will have voting rights. Members who find it convenient or appropriate to give their support through a local Chapter may be concerned by the changes for they do see their power of vote replaced by the influence that is exercised by the particular Agreement of Association that will be negotiated with their Chapter (in which we would expect them to retain their vote). These changes are indeed significant; they provide more autonomy and the new partnerships will be structured so that it is clearer what each Chapter gets from HQ. This must not change the principle that help is extended to Chapters in developing countries by the members of chapters that can afford to help them. Council have pondered these changes long and hard. We have concluded that they will make for a healthier more vibrant Association. We are inviting Chapter Chairmen to meet in Antwerp in March to make sure that the way forward is clear to them and that they can respond to questions you may wish to put to them.

The last three months have involved your Council in much hard work on other fronts. Working Groups (one on Rules, one on computer needs, one on the accounts -- expect the first of the improvements, to these and the Annual Report, in the August WPA News with the 1993/94 accounts -- and one on fund raising) have beavered away. Our Captive Breeding Advisory Committee (CBAC), chaired by Han Assink, has been particularly active and the Scientific Advisory Committee (SAC) has met too. We have also begun to strengthen links; between International and UK, and also between CBAC and SAC. Our left hand may actually soon know what the right hand is doing!

## DIRECTOR GENERAL'S REPORT

Keith Howman

The 67th IUCN Species Survival Commission meeting was held in Buenos Aires, Argentina, from 15-17 September and attended by Chairmen and representatives of the SSC's Specialist Groups. WPA is the Galliforme Specialist Group and the umbrella organisation to our five BirdLife/WPA Specialist Groups. A judiciously timed holiday in Patagonia enabled me to attend and represent us. It was encouraging to find how far progressed our groups are in relation to the Action Plans and of all the groups represented, we appeared to have by far the largest number of projects either underway or completed during the triennium.

It was also encouraging to find that our forward thinking is also on the right lines. In 1991 we began to draft our first national Action Plan using India as the model and this was completed in time for discussion at the Lahore Pheasant Symposium in September 1992. The IUCN main strategy change for the next triennium is to concentrate more on country or national strategies as complimentary to global strategies. I can therefore report that on all these counts your Association showed up well.

The Journal is complete and should be out within a few weeks. It retains its previous title, despite rumours of change. This will have been Dr Simon Dowell's last Journal and we thank him for his help. We are grateful to Prof David Jenkins who will take over in addition to chairing SAC. On the suggestion of both these scientists, approved by SAC, we shall however institute a review of its future and involve you in helping us decide on this. Expect a questionnaire to complete in August!

**A POSTAL AUCTION** - Almost all groups reporting appeared to have the same difficulty as we do, in obtaining core as opposed to project funding. Your Council has come up with one suggestion which with your help, could make a significant contribution to core funding - this can be found on the following two pages and is our first attempt at a postal auction. All you have to do is send in a bid - a guide price of actual value has been given and for some items a reserve price also. Winners will be announced in the next WPA News and all bids must be in by 14 April. Please note also that those items marked \* are not available outside the UK due to customs/quarantine or despatching problems.

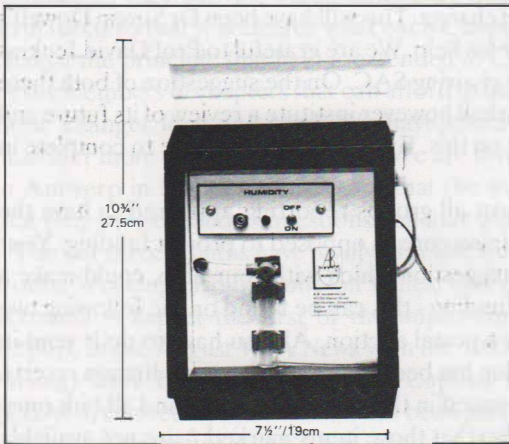
**CAN YOU HELP?** - Finally, on this wavelength, we would ask members to consider whether they have suitable items (particularly books, paintings, holiday cottage holidays, days fishing, shooting etc) that they could offer to us for the next one?

## WPA POSTAL AUCTION

WPA Council has been considering means of avoiding membership subscription increases for as long as possible. We do however need to increase our income to maintain the central operation at a level able to support the vast amount of successful conservation work we are currently engaged in. One proposal to assist is a fun postal auction for donated items. Each item will have a guide price against it and we will announce the highest (and the lowest!) bid made for each item but only the winners name if he/she has agreed to this.

		Guide prices
Item 1	Humidistat unit suitable for most small moving air incubators such as the Marsh Roll-X Donated by A.B.Incubators	£150

### A.B. 'HUMIDISTAT' HUMIDITY CONTROLLER



#### CONVERT YOUR EXISTING INCUBATOR

*A fully electronic automatic humidity control*  
This unique device, using the latest solid state components, has been developed for use with any existing incubator with a capacity of 1200 eggs or less. It has its own wet bulb thermometer facility.

#### *How does it work?*

A sensor is placed in the wet bulb wick to assess the degree of humidity. When more moisture is required, a solenoid valve opens allowing a small quantity of water to enter the incubator via the water control valve, onto an absorbent pad. The water continues to flow until the required preset humidity level is reached.

**Supply voltage:** 240v, 1PH 50Hz AC input

#### **Dimensions:**

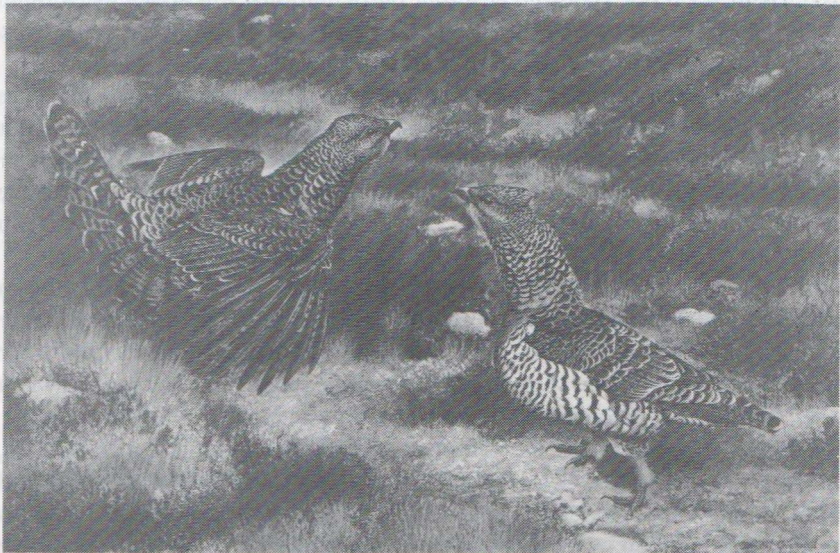
7 1/2" - 19cm WIDE  
6.0" - 15cm DEEP  
10 3/4" - 27.5cm HIGH

#### **Weight**

**unpacked** 4.0lbs - 1.8 kilos

Item 2	1st Edition of Johnsgard's Pheasants of the World (now out of print) Donated by WPA	£ 45
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- |          |  |      |
|----------|--|------|
| Item 3   | Hand coloured etching of Brown Eared-pheasants by Timothy Greenwood (see front cover of WPA News 27). Donated by the artist                                    | £ 75 |
| Item 4   | Limited Edition leather bound copy of Pheasants of the World, their breeding and management by Keith Howman<br>Donated by the author                           | £250 |
| Item 5   | Painting size 7"x11" of shore birds painted in 1935 by Phillip Rickman mounted and framed  | £275 |
| * Item 6 | Bottle of Champagne Bollinger<br>Donated by Metzendorff  | £ 45 |
| Item 7   | Limited Edition print size 13"x18" of 'Hen Capercaillies Sparring' signed and numbered by the artist Timothy Greenwood. No 146 of 350<br>Donated by the artist | £ 55 |



- |          |   |      |
|----------|---|------|
| * Item 8 | Pair Temminck's Tragopan 1993 bred<br>Donated anonymously | £350 |
| * Item 9 | Breeding pair Mikado Pheasants<br>Donated anonymously     | £ 45 |



## PARENT REARING

Ronald R Sumner

I recently read the article by Keith Howman (WPA News 41) on *Parent rearing - some aviary observations* and very much agree that this is a most desirable aspect of raising galliformes. I have done exactly that for several years. In fact, I generally pull the first clutch of eggs (usually two to six, depending on the species) and the rest are left for the parents to raise.

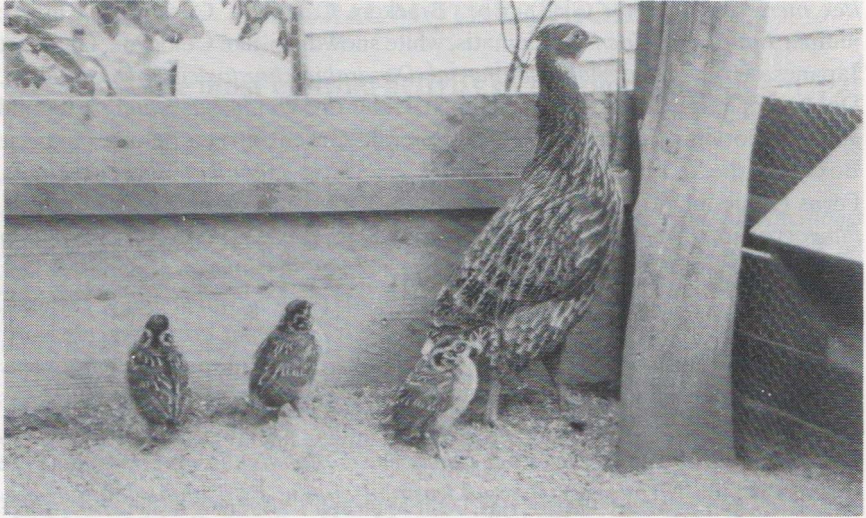
The Edwards's mentioned in his article do not behave as the ones I have or perhaps they do and a better more detailed analysis should become available. The parent Edwards's I keep are very shy birds and will run to the opposite end of their aviary when approached. However, when sitting their eggs they become entirely different birds. Both male and female sit the eggs, with one male in particular roosting the hen off her eggs. I have observed hens off the nest with the male sitting on them and vice-versa. Usually I can approach the nest to within one or two feet and observe these birds without any apparent disturbance to the birds. However if one is off the nest that particular bird will attack me with no apparent fear whatsoever. Several times either their claws, or in the male's case perhaps his spurs, have nicked me enough to draw blood.

When the chicks are hatched they become even more bold and will 'attack' as one even approaches their aviary. Both protect the chicks and keep them under wing and I have not been able to observe a chick's preference over the male or female as they take to either when alarmed or at night. Once I can begin to see blue feathers appear on the males the young are removed and within one to two weeks parent birds again become very shy and show no signs of aggression.

Normally, I take three eggs from each pair and then the hen will lay between two to four eggs before incubation begins. I have been letting these birds sit their own eggs for several years now (one pair for seven years) and their behaviour is virtually the same from year to year and not a single year has passed when these birds did not hatch young.

I also have several species of Tragopans, Monal, Eared, Mikado, Reeves, Amherst, Copper, Palawan and many others, also bleeding heart doves and several dove species as well as some species of partridge and all of these birds are allowed to sit their own eggs. I only recently acquired the Coppers, and have not successfully parent hatched any White Eared.

Personally I'm not interested in making money from the raising of these birds as a lot of breeders seem to be and therefore I couldn't really care less about the quantity of birds I raise from year to year. But do care very much about their quality.



*Monal hen and three chicks.*

*Photo: John Corder*

I have enclosed a list of foods, plants *etc* which I have compiled from several books, articles, and experience of the Tragopans which readers may or may not find interesting. Most of my Tragopans are rather hard to find because of the densely planted aviaries.

**Ferns:** *Athyrium nipponica*, *Ctenitis mariformis*, *Cystopteris mouinsis*, *Dryopteris* spp., *Lomaria* (*Plagiogyria* and *Blechnum*-ostrich fern), *Matteuccia struthiopteris*, *Pinna* (*Dryopteris wallichiana*-woodfern) *Plagiogyria* sp., *Pteridium aquilium* and *Pyrrosia* sp..

**Grasses:** Alfalfa, *Allium hookeri*, *Androsace* spp., *Aristolochia moipinensis*, *Artemisia* spp., *Primula* sp., *Cacalia davidii*, *Carex* sp., *Cardamine macrophylla*, *Cardamine tangutorum*, *Cheysoplenium graffphii*, *Clematis* sp., Clover, *Fragaria* sp., *Impatiens dicentra*, Kentucky fescue, *Oxalis graffithii*, *Petusitt japonica*, *Poa annua* (bluegrass), *Rumes* spp., *Sambucus adnata*, and *Smilacina* sp..

**Bamboos:** *Fargesia spathacea*, Heavenly *Nandina domestiga*, *Polygonatum odoratum*, ringal, and *Sinarundinaria nitida*.

**Flowers, shrubs and trees:** *Agaricus* sp., *Akebia trifoliata*, *Azalea Hinodegeri* *Azalea*, *Azalea* (pink ruffle pink), Bustard Cinnamon, *Begonias*, Blue Girl Holly

*Ilex merserveae* ('Blue Girl'), Box, Bracken, Camelias, Chestnuts, Chinese juniper *Juniperus chinensis*, Clematis, white snowdrop-like Celogyne, Compact Japanese Holly *Ilex crenata* 'compacta', *Dendrobia chrystoxicum*, *Densiflorum*, Daphne or paper lilac, Dwarf Yaupon Holly *Ilex vomitoria* 'Nana', Emerald green Arborvitae *Thuja occidentalis* 'Emerald Green', Green Beauty Japanese Boxwood *Buxus microphylla japonica*), *Helwiugia japonica*, Forget-me-nots, Ferns (Maidenhair to palm, *Dryopteris* spp), Green Liriope *Liriope muscari*, *Plagiogyria* sp., *Pyrosi* sp., *matteuccia strutiopteris*, *ctenitis mariformis*, *Pteridium aquilium*, *cystopteris mouinsis*, Honeysuckle, Ivy, *Ilex integra*, Japanese Black Pine *Pinus Thunbergi*, Japanese Boxwood *Buxus microphylla japonica*, Jasmine, Juniper trees, Larch tree *Larix X eurolepis*, *Larix decidua*, *Larix leptolepis*, *Larix occidentalis*, Lilacs (daphne or paper), Magnolia, Mint Julep Juniper *Juniperus chinensis* 'Monlep', Mohave Firethorn *Pyracantha x 'mohave'*, Moss *Haplocadium microphyllum*, *minium cuspidatum*, *Entodon* sp., Oak, Orchid, Paper Laurel (Laurus of the family *Lauraceae*, *L. nobilis*), *Pinus amandii* (Pine trees), Primula (Primrose), Privet *Ligustrum quihiu*, *Pyracantha fortuneana*, *Prunus padna* (European Bird Cherry or May Day Tree), Red Sunset Maple *Acer rubrum* 'Red Sunset', *Viburnum* spp., *Rhododendron* spp., *Rhododendron Nova Zembla* (Rhododendron hybrid 'Nova Zembla'), *Rhus verniciflua*, *Ribes* spp., *Ringal*, *Rubus* spp., *Rubus* (dewberry), *Rumex* (dock), Shumard Oak *Quercus shumardii*, *Sorbus* sp. and *Sorbus* (rowan or mountain ash tree), Texas Scarlet Flowering Quince *Chaenomeles japonica*, *Viburnum* and Violets.

**Mosses:** *Haplocadium microphyllum*, *Entodum* sp., and *Minium cuspidatum*

### **List of foods Tragopans eat:**

General: Acorns, apples, B-pollen, banana, berries of various sorts, bilberries, blackberries, carrot, carrot juice, celery juice, Chinese or red cinnamon, cranberries (raw), cucumber, dandelion leaves, grapes, green hickory chips, juniper berries, milfoils (leaves of various sorts), oak nuts, onion like bulbs (onion plants), graded orange peels, oranges, peaches, pears, raspberries, strawberries, sweet potatoes, snappy shoots, stinging nettles, tomatoes, turnips, various grasses, watermelon, yogurt, leaves and buds, young green shoots of bamboo, seeds of rhododendrons, aromatic leaves such as daphne and bustard cinnamon, begonias, currants, roots of ferns, leaves of barberry, mushrooms, round truffles, sweet scented paper laurel (laurus of the family *lauraceae* *L. nobilis*). insects - earwigs, black ants, centipedes, cicadas, cockchafer, spiders, white centipede, dried fly pupae, live *Musca domestica* larvae, soya *musca*, termites, white ants, worms, moths, grasshoppers.

## NATURAL MOTHERHOOD

### The most exciting activity in the pheasantry

Harry J Hardy

*The following article, written in April 1979, was sent in by one of our first members in Canada, Harry J Hardy. He wrote when sending it to us "I read the article on parent rearing in WPA News 41 with interest. I had a little fun with this subject a few years back and wrote the enclosed article at the time. This year we let the Blyth hatch her last clutch of eggs and I am writing an article on them now. The Salvadori set on her last two eggs last year but they were both clear. She likes the 60-inch high shelf. My Imperial raised her own, she likes to set on a 60-inch high shelf. The Cheer made her nest on the ground and so did the White Crested Kalij."*

Our Silver and Swinhoe Pheasants have raised their own young for several years. We have noticed that these chicks are superior in several ways to their siblings raised in the brooder. They require no attention from us; the hen only broods them when necessary, thus they feather up early with a better quality feather. They seem to roost early and they switch over to grower pellets earlier than brooder raised birds.

The Swinhoe and Silver raise their young in a different manner. The Swinhoe forces her chicks to perch early. She will sit on the perch and call them up until almost dark, and if they are not all up, she will go down and brood them on the ground. If they are all up she will brood them on the roost. The Silver does not call them up to the roost but just seems to let it happen, and naturally it takes longer.

We thought that if we could learn how some of the other species reared their young, we could modify our brooder techniques to duplicate the time of homiothermy independence more accurately, which would allow us to move them outside sooner and shut off the heat at the right time. By doing this, we hope to improve our brooder raised stock to somewhere between our present quality and the beautiful young birds raised by their own parents.

In 1977 and 1978 we encouraged as many pheasant hens as possible to rear their own young. We had 11 set in 1977 and nine in 1978. If any of you wish to experience the fun we had, I suggest you buy a hen that was reared by its own mother, and you will probably have a setter.

The process of assembling the clutch, setting, and brooding was monitored closely. The time from hatch to perching varied by species as you will note in the following table.

TIME REQUIRED TO REACH SELF SUSTAINING BODY TEMPERATURE				
SPECIES	DATE HATCHED	UP ON PERCH	PERCHING ALONE	ELAPSED DAYS
Indian Blue Peafowl	June 8	June 21	Aug 21	74
Amherst	June 3	—	July 14	41
Golden	May 20	June 1	June 25	36
Y. Golden	May 30	June 21	June 25	26
Koklass	June 21	—	July 30	39
Reeves	July 2	—	Aug 8	35
Silver	May 16	May 31	June 4	19
Swinhoe	April 30	May 11 under hen	May 28	28

From this experiment it is obvious that the young pheasants should be moved outside at three weeks of age, and the heat should be off at six weeks. Our previous schedule was outside at four weeks and we kept the heat on as long as they used the lamp.

All the roosters were left in the aviary with the hen and chicks and none bothered the chicks when they were young. The Yellow Golden rooster was removed because he tried to breed the hen while she was setting, and she would leave the nest. The Swinhoe and Koklass roosters turned mean in October. The Swinhoe cock attacked the young cockerels and pullets, while the Koklass cock only attacked the young cockerels.

For those of you who wish to let some of your birds set next spring, I have listed a few dos and don'ts associated with natural hatching, brooding and raising that we learned along the way:

1. Be sure there are no small holes around the bottom of the aviary. Attach a 12-inch high strip of half-inch by half-inch mesh to the one-inch pen. The chicks will go through any hole you leave one-inch by one-inch or larger.
2. If the hen sets on a shelf, you must be there when the chicks hatch, as some are afraid to jump down and will die in the nest in a few hours. After the chicks are placed on the ground take the shelf down as the hen will try to call the chicks up to brood them on the shelf and they will perish on the ground while she sets up on the shelf.
3. Mix the chicks, crumbles with the adult feed in the chick trough otherwise the chicks may not learn where their size of feed is and will starve to death.
4. Make sure there are no rats in the pens (perish the thought) or they may kill the young at night.
5. Clean up the pen and turn the earth over mixing it with lime. We do this just prior to hatching so the chicks have a clean floor upon which to start their lives.

6. Remove young cockerels from the adults' pen in September to avoid problems between the adult cock and the young cocks as they grow older.

The following paragraphs give a species-by-species description of the nesting birds and some of our observations during that period.

### **Indian Blue Peafowl**

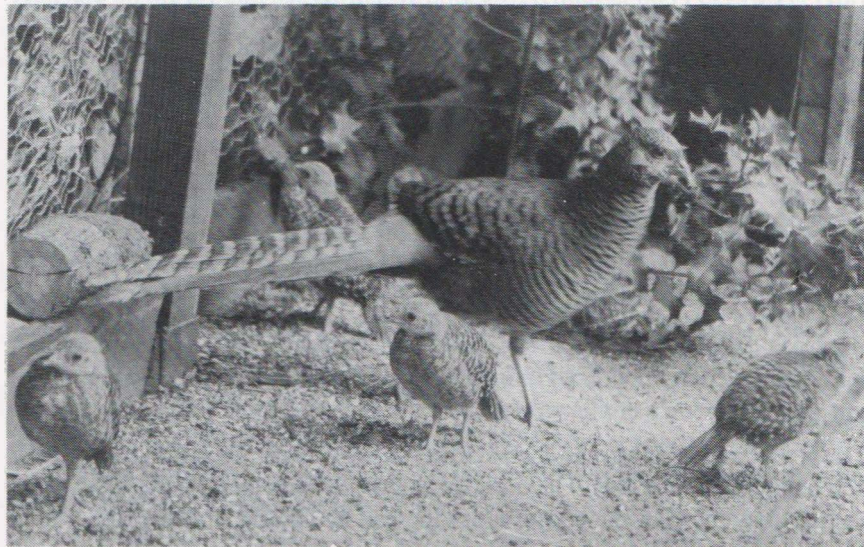
The hen laid six eggs and hatched all six on 8 June 1978. She nested on a shelf 24-inches off the ground and over the years has preferred this shelf to the ground. The poults were up on the perches in the day time in 13 days but did not perch on their own at night until the 74th day on 21 August 1978.

### **Lady Amherst**

Hen nested on the ground in a corner under a Xmas tree. She set on nine eggs and hatched off four chicks on 3 June 1978. The chicks remained close to mother for the first 11 days and then spread out all over the pen. All the chicks were perching on their own on the 41st day, 14 July 1978.

### **Edwards's**

Hen nested on the ground in a corner with no cover. She set on 12 May 1977 and 6 April 1978. She set for the full 24 days each time but did not hatch off any chicks. She was very aggressive when setting and would attack my shoes.



*Golden hen and chicks.*

*Photo: J G Corder*

### **Golden**

Hen nested on a shelf 60-inches off the ground. She set on nine eggs and hatched eight chicks on 20 May 1978. The chicks were up on the perches on the 12th day but did not perch at night until the 36th day on 25 June 1978.

### **Yellow Golden**

Hen nested on the ground in a corner without cover. She set on ten eggs and hatched three chicks on 30 May 1978. We put the other seven eggs in the incubator and three hatched. We gave these back to the hen and she raised all six. The chicks were perching on their own on the 26th day, 25 June 1978.

Note: Poor hatch was probably due to cock bothering her.

### **Koklass**

Hen nested on the ground in a corner under a Xmas tree in both 1977 and 1978. In 1977 she sat tight for the 27 days and hatched seven of the eight eggs. The cap off one hatched egg stuck on the top of the unhatched egg, and the chick could not break through the double layer of shell. The hen foraged in the grass all day and all seemed well, but on the 7th day I noticed one dead chick. I went in to see if there were any more and noticed all the chicks were weak on their legs. I gathered them up in a bucket (they were too weak to jump out) and tried to feed them by hand, but eventually they all died. The hen had not taught them to set the chick starter, and they could not find enough feed in the grass. In 1978 she set on eight eggs, two rolled out of the nest but she hatched the remaining six on June 20, 1978. One chick was dead under her when she came off the nest. One of the two cold eggs hatched in the incubator. We mixed the chick starter and meal worms in with the adult feed, and she raised all five. The chicks were roosting on their own in 40 days, 30 July 1978.

### **Mikado**

She nested on a shelf about 60 inches off the ground. She laid seven eggs and set on 26 April. The clutch was infertile, and the eggs were removed about the ninth day. The hen laid two more eggs and the cock set on 10 May. He set for the full 27 days. We felt the eggs would be infertile, but we let him sit the full 27 days just to see if he would.

### **Reeves**

The hen nested on the ground in a corner without cover. She set on 8 June 1977 and hatched off on 2 July. The cock shared the brooding of the chicks. At first he had about 50% of the brood but in the end he had them all and did all the brooding himself. The chicks perched in 35 days on 8 August during a real hot spell.



*Hen Koklass on nest.*

*Photo: R Whale*

### **Silver**

Hen laid on the ground in a corner without cover. She set on 11 eggs on 17 April 1978. This appeared to be too many eggs, as there were always eggs showing around her. We removed three eggs and put them in the incubator. She hatched five young on 16 May, and when she left the nest on 17 May we put the remaining three eggs in the incubator. The original three eggs hatched in the incubator and we gave her these three chicks in the daylight on 19 May. Two of the last three eggs hatched, and we gave her these two chicks a few days later. She accepted all the chicks and raised them all as one brood. They were up on the perches in 14 days and roosting at night in 19 days on 4 June.

### **Swinhoe**

The hen nested on a shelf 60-inches off the ground. She set on 2 April and hatched six chicks on 30 April. The chicks could fly up onto the 60-inches high perches when they were five days old. On 11 May all the chicks were roosting under the hen's wings, and on the 28th day, 28 May were roosting on their own. The chicks switched from starter to grower pellets in five weeks which is the shortest time of all the pheasants.

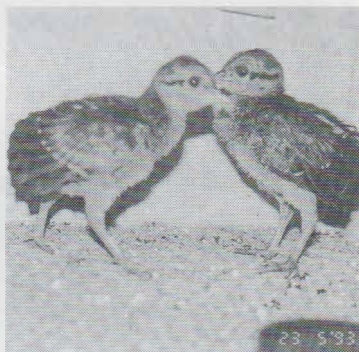
*Harry J Hardy, 4566 Portland Street, Burnaby, British Columbia, Canada V5J 2N9.*



## BULWERS BREEDING

Keith Howman

The Bulwers Pheasant has proved to be one of the most difficult species to breed in captivity. Whilst there was quite good success with first generation wild caught birds, there has been little with second generation birds. Much more than with other species two pairs will be fertile one year and then never again. The implication must be that there is a diet problem but as the species has never been studied in the wild, almost nothing is known about its diet and ecology.



It was encouraging therefore to receive a letter from Ricardo Sobrino of Aviornis in Spain (his photograph above shows the Bulwers Pheasant) giving some details of a successful breeding at The Parque Ornitológico De Lourosa. The Parque is owned by Manuel Leal who is apparently a great bird lover and keeps cracids, parrots, wildfowl, pigeons etc. He first bought his two pairs of Bulwers several years back from Charles Sivelle. The first year one female laid seven eggs, two fertile but none hatched. The second hen did not lay.

The second year both hens laid five eggs and 11 eggs respectively, the latter in two clutches. Four of the 11 eggs were fertile but did not hatch. Bantams, the hen herself and an incubator were all tried. In year three (1991) one hen died and the other laid seven eggs of which two were fertile and one hatched - it was a male. In 1992 five eggs were laid, all infertile. However in 1993 three fertile eggs were laid and hatched by the female. These were taken from her on hatching and reared under a broody lamp. Both are hens.

As one goes through life one hears all sorts of strange suggestions and recordings concerning pheasants and unfortunately does not always record who made them. One has always stayed in my mind and is perhaps worth recording which was the suggestion made to a visitor to Borneo that Bulwers had a habit of working their way in parties up shallow streams in the forest feeding on small water life as they went. If this was true it would suggest that perhaps they have found a way of obtaining a high level of protein which may be important to the breeding success. Perhaps we should be feeding them freshwater shrimps?

I would be very pleased to hear from others who may have had recent success with breeding Bulwers and perhaps an investigation into the diet we give them might be beneficial.

## MACHIARA NATIONAL PARK

Congratulations to our friends in WWF Pakistan and WPA Pakistan. Older members of WPA may recall the name of Machiara Game Reserve cropping up again and again in reports from workers on the Western Tragopan in Pakistan. From the days of Dr Sheldon Severinghaus in 1976 to Kamal Islam and more recently Guy Duke, WPA field workers have been urging for more effective controls and management of Machiara.

This has been supported by WPA Pakistan through, particularly, WWF Pakistan whose enthusiastic and effective Conservation Director, Mr Ashiq Ahmed has at last had success. Those members of WPA who attended the Lahore Symposium in September 1992 will have been impressed by Mr Ashiq Ahmed's non-confrontational but highly persuasive advocacy of his causes.

Recently logging increased in Machiara which made action all the more necessary and the following copy of a letter from WPA Pakistan administrator, Al Lee, to Ashiq Ahmed all the more pleasing to receive. Congratulations to all concerned.

Dear Ashiq Sahib

I am delighted to hear that you had the opportunity to meet the Prime Minister of Azad Kashmir and appraise him of the large scale deforestation taking place in the Machiara Game Reserve. Not only did you convince him to agree to impose a ban on future logging, but your advice has eventually borne fruit in making Machiara Game Reserve, now into a national park. This will give the endangered Western Tragopan and many other species of wildlife and plants a new lease in life.

I must congratulate you, on the great contribution you have made over the years towards nature conservation, and in protecting our natural heritage for future generations to enjoy. Your interest and dedication will always be appreciated by all of us.

Looking forward to seeing you in Karachi.

Yours sincerely  
Al Lee

## PHEASANTS AND MOSQUITOES

Keith Howman

The importance of the pheasants in general and the Red Junglefowl in particular to man has been highlighted once again - this time in Queensland, Australia. An item in the *New Scientist* informs us that chickens are being used to provide an early warning that mosquitoes carrying tropical diseases are in the area.

The article records that four flocks of 20 healthy chickens have been placed at suitable sites within a few hundred metres of residential areas in the town of Rockhampton on the Fitzroy River about 20km from the coast. Although mosquitoes can infect chickens with a group of viruses called arboviruses, the birds do not become ill. In humans, however, the arboviruses can cause some debilitating diseases, such as dengue fever and Ross River fever (epidemic polyarthritis). The project began last year but it was stepped up this week as the rainy season began. Mosquitoes are most active from now until April or May.

Members may recall an article in WPA News 24 in which Dr Bill Bray records "Before the second world war experimental work on malaria was difficult as the parasites causing the disease would infect only man, so no laboratory model was available for study of its behaviour and cure.

"In 1936 Emile Brumpt, the doyen of French parasitologists, discovered a malaria parasite in the Ceylon Junglefowl and named it *Plasmodium gallinaceum*. He was able to get it into chicks and so the world had a laboratory model in which to study *Plasmodium*. This became of prime importance during the war between the UK, the USA and Australia against Japan. Much of this war was being fought in malarial areas and the Japanese had over-run most of the important plantations of the quinine tree. A new synthetic anti-malarial drug was of the first importance and the Americans tested hundreds of thousands of drugs using *P. gallinaceum* as the preliminary screen."

The Red Junglefowl was used to illustrate an article *Parasites* by Bob Holmes in the same issue of *New Scientist*: Even the gaudy plumage and elaborate courtship behaviour of breeding male birds may have more to do with parasites than with aesthetics. In 1982, evolutionary biologists Bill Hamilton and Marlene Zuk, proposed that males with showy feathers and vigorous courtship rituals, may be advertising their freedom from parasites. Ailing, worm-ridden males wouldn't be able to spare the energy for such a display. It followed that females should evolve to choose the showy males because their parasite-resistant genes would produce fitter offspring. Several studies since then have strengthened Hamilton and Zuk's hypothesis, although it remains controversial - like many evolutionary theories that can't be tested directly in the laboratory.

## THE 1991 WPA CENSUS OF GALLIFORMES

Diane Hewitt

The development and maintenance of captive populations of galliformes has always been a crucially important part of the activities of WPA. To monitor these captive bird numbers was the aim of the international censuses held in 1979, 1982 and 1991; individual chapters or specialist groups have held limited censuses during the intervening years.

The census form used in 1991 was very similar to that used earlier and included 33,705 separately identified taxa, each being identified by its formal Latin name and by one or more vernacular names. Forms were sent out in the late summer and early fall, requesting that captive bird numbers as at 31 December be entered. Forms were sent to individual WPA members and other individuals and organisations thought to keep galliformes. The census was also advertised in various avicultural magazines. In short, every reasonable route was taken so that the census might be as complete a picture as possible of galliformes in captivity. However there is no way of knowing precisely the proportion of captive birds that the completed census represented. Thus the census totals represent the minimum number of birds in captivity. An informed estimate suggests we may have identified about half of the galliformes in captivity. The total number of completed forms was very close to 400. It is not certain how many census forms were returned for the 1979 and 1982 censuses as this information has unfortunately been lost. It is therefore not possible to directly compare the number of captive birds between the three international censuses which have been run by WPA. This point cannot be over stressed.

Most returns were received by early spring of 1992 but a large batch of returns from the southern hemisphere arrived in the late summer and rather caught us by surprise. This flagged up a problem not previously considered, *ie* that the deadline for returns for the two hemispheres needed to differ by six months.

One development in the US was that several interested groups of aviculturists produced a modified version of the census form, leaving out many of the more unusual species. These returns ended up only showing the most commonly held species and in some instances are certainly incomplete.

Another problem relates to bulk returns. One Asian chapter sent in a composite return and so we know in great detail the numbers of the various species held in that country but lack detail on how these birds are distributed among keepers, flock sizes or sex ratios in the various flocks *etc*. These are all important pieces of information that the census form was designed to collect.

The data from the forms have all been entered onto a computer database (and the number of returns recorded so that direct comparisons can be made in the future!). The total database is confidential, only the Census Co-ordinator knowing the names of the individuals who made returns and the details of their birds. In fact, the entries are coded so that names and addresses cannot be accessed by anyone using the data file. A database of this nature allows the information to be readily manipulated and interpreted. Print-outs of the complete census returns have been sent to all the Chapter Chairmen for use by their Chapter members.

The census data have already proved invaluable. At the Conservation Assessment and Management Plan meeting held in Antwerp in February 1992, the conservation status of every galliforme taxon was evaluated, both wild and captive populations. This meeting was attended by scientists from each galliforme Specialist Group and one problem which became apparent early on was confusion over the taxonomy and in particular the vernacular names (many aviculturalists know their birds by their vernacular or common names and it was clear from the census returns that incorrect identification of birds was being made as in some instances the same common name was being applied to different species). An agreed complete list of all known species and subspecies has now been prepared together with an agreed list of vernacular names.

The number of captive birds recorded in the census provided few surprises and indeed confirmed that numbers of most species were not very different from those recorded in 1982. At the CAMP meeting a review of zoo-based data not included in the WPA census was interpreted to indicate that total numbers of captive galliformes were possibly two times as great as the numbers recorded by WPA. The Action Plan produced for each galliforme species at the CAMP meeting included input of data from the WPA census and for 19 species a captive breeding programme was identified as an important activity to be pursued as part of the species conservation programme.

There have been various other uses to which the data have been put. For example, in the UK a WPA member wanted to be put in touch with keepers of Satyr Tragopans as she needed a female; the census co-ordinator was able to supply a print-out of all those UK members who had indicated their willingness to have this information made available.

A second example concerns the Edwards's Pheasant. There was a commonly stated problem that prolonged captivity and a narrow genetic base had led to a considerable sex imbalance in the captive population and that few female birds were being bred. The data clearly contradicted this, there being almost exactly equal proportions of males to females in the captive population which numbers about 420. There was, it is true, a slight excess of males in the UK population.

The census database was demonstrated at the Symposium in Pakistan in October 1992. A portable computer was set up beneath the trees in Jallo Park and an electricity supply shared with Dr John Beer who was dissecting dead birds and identifying parasites, surrounded by a large audience! Those interested in the census were able to interrogate the data base and learn the many ways in which data could be manipulated or questions answered.

The next census is likely to be held in 1994, but is yet to be formally agreed by the Captive Breeding Advisory Committee, with 30 June as the return date for southern hemisphere breeders and 31 December for northern hemisphere breeders. A census every three years seems a reasonably practical aim although there have been suggestions that we should ideally have an annual census return. In fact since sending back their 1991 census forms several breeders have sent in an annual return.

As part of the WPA Captive Breeding Strategy the Captive Breeding Advisory Committee has recently recommended that certain species which are endangered in the wild and which also have relatively small captive breeding populations, be monitored on an annual basis. Starting in 1994 a questionnaire will be circulated so that we can monitor more closely the status of this group of galliformes, which number about 20 endangered species or subspecies. Madelon van der Zee will assist the Census Co-ordinator in this task.

In readiness for the next census we would ask all WPA members to try and identify other aviculturists or organisations keeping galliformes so that we can ensure that their birds are included. Our aim must be to make the census as complete as possible so that we gain a true picture of the captive population of galliformes and their distribution around the world.

*PERDICINI*  
**OLD WORLD QUAIL  
& PARTRIDGE**

Species	Total
<u>Arborophila hyperythra</u> Redbreasted Tree Partridge	-
<u>Arborophila ardens</u> * Hainan Hill Partridge	-
<u>Arborophila charltoni</u> * Chestnutbreasted Tree Partridge	-
<u>Arborophila chloropus</u> Greenlegged Hill Partridge	-
<u>Arborophila merlini</u> Annamese Hill Partridge	-
<u>Caloperdix ocella</u> Ferruginous Wood Partridge	59
<u>Haematorix sanguiniceps</u> Crimsonheaded Wood Partridge	-
<u>Rollulus rouloul</u> Rouloul Crested Wood Partridge	297
<u>Ptilopachus petrosus</u> Stone Partridge	-
<u>Bambusicola fytchii</u> Bamboo Partridge	46
<u>Bambusicola thoracica</u> Chinese Bamboo Partridge	113
<u>Galloperdix spadicea</u> Red Spurfowl	-
<u>Galloperdix lunulata</u> Painted Spurfowl	-
<u>Galloperdix bicalcarata</u> Ceylon Spurfowl	-

*PERDICINI*  
**OLD WORLD QUAIL & PARTRIDGE**

Species	Total
<u>Coturnix coromandelica</u> Black-breasted/Rain Quail	105
<u>Coturnix delegorguei</u> Harlequin Quail	33
<u>Coturnix chinensis</u> Bluebreasted Quail	496
<u>Coturnix pectoralis</u> Pectoral Quail	-
<u>Coturnix ypsilophorus</u> Brown Quail	25
<u>Anurophasis monorthoryx</u> Snow Mountain Quail	-
<u>Ophrysa superciliosa</u> Mountain Quail	34
<u>Pedicula asiatica</u> Jungle Bush Quail	30
<u>Pedicula argoondah</u> Rock Bush Quail	-
<u>Pedicula erythrorhyncha</u> Painted Bush Quail	-
<u>Pedicula manipurensis</u> Manipur Bush Quail	-
<u>Arborophila torquella</u> Common Hill Partridge	72
<u>Arborophila rufogularis</u> Rufous-throated Hill Partridge	-
<u>Arborophila atrigularis</u> Whitecheeked Hill Partridge	-
<u>Arborophila crudigularis</u> Formosan Hill Partridge	-
<u>Arborophila mandellii</u> Redbreasted Hill Partridge	-
<u>Arborophila brunneopectus</u> Brownbreasted Hill Partridge	26
<u>Arborophila rufispectus</u> Boulton's Hill Partridge	-
<u>Arborophila gingica</u> Rickett's Hill Partridge	-
<u>Arborophila davidi</u> David's Tree Partridge	-
<u>Arborophila cambodiana</u> Chestnut-headed Tree Partridge	-
<u>Arborophila orientalis</u> Sumatran Hill Partridge	34
<u>Arborophila javanica</u> Chestnut-bellied Tree Partridge	26
<u>Arborophila rubrirostris</u> Red-billed Tree Partridge	-

Species	Total
<u>Lerwa lerwa</u> Snow Partridge	-
<u>Ammoperdix griseogularis</u> See-See Partridge	68
<u>Ammoperdix hevi</u> Sand Partridge	19
<u>Tetraoallus caucasicus</u> Caucasian Snowcock	-
<u>Tetraoallus caspius</u> Caspian Snowcock	-
<u>Tetraoallus himalayensis</u> Himalayan Snowcock	32
<u>Tetraoallus tibetanus</u> Tibetan Snowcock	-
<u>Tetraoallus altaicus</u> Snowcock	-
<u>Tetraophasis obscurus</u> Verreaux's Monal Partridge	-
<u>Tetraophasis szechenyii</u> Szechenyi's Monal Partridge	-
<u>Alectoris chukar</u> Chukar	572
<u>Alectoris magna</u> Przevalski's Rock Partridge	-
<u>Alectoris graeca</u> Rock Partridge	22
<u>Alectoris rufa</u> Red-legged/French Partridge	211
<u>Alectoris barbara</u> Barbary Partridge	112
<u>Alectoris philbyi</u> Philby's Rock Partridge	222
<u>Alectoris melanocephala</u> Arabian Red-legged Partridge Arabian Chukar	94
<u>Perdix perdix</u> Grey Partridge	233
<u>Perdix dauricae</u> Daurian Partridge	11
<u>Perdix hodgsoniae</u> Tibetan Partridge	-
<u>Margaroperdix madagascarensis</u> Madagascar Partridge	80
<u>Melanoperdix nigra</u> Black Wood Partridge	4
<u>Coturnix coturnix</u> Common/Eurasian Quail	97
<u>Coturnix japonica</u> Japanese Quail	4975

CRACIDAE  
CRACIDS, GUANS & CHACHALACAS

Species	Total
<u>Ortalis vetula</u> Plain Chachalaca	1
<u>Ortalis cinereiceps</u> Grey-headed Chachalaca	14
<u>Ortalis garula</u> Chestnut-winged Chachalaca	
<u>Ortalis ruficauda</u> Rufous-vented Chachalaca	14
<u>Ortalis erythroptera</u> Rufous-headed Chachalaca	**
<u>Ortalis poliocephala</u> West Mexican Chachalaca	1
<u>Ortalis canicollis</u> Chaco Chachalaca	27
<u>Ortalis leucogaster</u> White-bellied Chachalaca	
<u>Ortalis motmot</u> Variable Chachalaca	19
<u>Penelope argyrotis</u> Band-tailed Guan	
<u>Penelope barbata</u> Bearded Guan	**
<u>Penelope montagnii</u> Andean Guan	
<u>Penelope ortoni</u> Baudo Guan	*
<u>Penelope marail</u> Marail Guan	
<u>Penelope superciliosus</u> Rusty-margined Guan	
<u>Penelope dabbeni</u> Red-faced Guan	**
<u>Penelope obscura</u> Dusky-legged Guan	3
<u>Penelope jacquacu</u> Spix's Guan	16
<u>Penelope albipennis</u> White-winged Guan	**
<u>Penelope perspicax</u> Cauca Guan	**
<u>Penelope purpurascens</u> Crested Guan	32
<u>Penelope jacucaca</u> White-browed Guan	**
<u>Penelope ochrogaster</u> Chestnut-bellied Guan	**
<u>Penelope pileata</u> White-crested Guan	*

Species	Total
<u>Papile cumanensis</u> Common Piping Guan	6
<u>Papile jacutinga</u> Black-fronted Piping Guan	**
<u>Aburria aburri</u> Wattled Guan	
<u>Chamaepetes unicolor</u> Black Guan	*
<u>Chamaepetes goudotii</u> Sickle-winged Guan	
<u>Penelopina nigra</u> Highland Guan	**
<u>Oreophasis derbianus</u> Homed Guan	**
<u>Nothocrax urumutum</u> Nocturnal Guan	
<u>Mitu tomentosus</u> Crested Curassow	
<u>Mitu salvini</u> Salvin's Curassow	
<u>Mitu mitu</u> Razor-billed Curassow	*
<u>Pauxi pauxi</u> Northern Helmeted Curassow	*
<u>Pauxi gilliardi</u> Northern Helmeted Curassow	*
<u>Pauxi unicornis</u> Southern Helmeted Curassow	*
<u>Pauxi unicornis koepekeae</u> Southern Helmeted Curassow	
<u>Crax rubra</u> Great Curassow	
<u>Crax alberti</u> Blue-billed Curassow	*
<u>Crax daubentoni</u> Yellow-knobbed Curassow	2
<u>Crax alector</u> Black Curassow	20
<u>Crax globulosa</u> Wattled Curassow	*
<u>Crax fasciolata</u> Bare-faced Curassow	25
<u>Crax blumenbachii</u> Red-billed Curassow	*



*PERDICINI*  
FRANCOLINS

Species	Total
<u>Francolinus francolinus</u> Black Partridge	251
<u>Francolinus pictus</u> Painted Partridge	-
<u>Francolinus pintadeanus</u> Chinese Francolin	-
<u>Francolinus afer</u> Barethroated Francolin	1
<u>Francolinus swainsonii</u> Swainson's Francolin	-
<u>Francolinus rufopictus</u> Painted Francolin	-
<u>Francolinus leucoscepus</u> Yellownecked Francolin/Spurftowl	13
<u>Francolinus erckelii</u> Erckel's Francolin	153
<u>Francolinus ochrogaster</u> Palebellied Francolin	-
<u>Francolinus castaneicollis</u> Chestnutaped Francolin	-
<u>Francolinus jacksoni</u> Jacksons Francolin	-
<u>Francolinus nobilis</u> Ruanda Francolin	-
<u>Francolinus camerunensis</u> Cameroon Francolin	*
<u>Francolinus swierstrai</u> Swierstra's Francolin	*
<u>Francolinus ahantensis</u> Ahanta Francolin	-
<u>Francolinus squamatus</u> Scaly Francolin	-
<u>Francolinus griseostriatus</u> Greystriped Francolin	-
<u>Francolinus bicaratus</u> Doublespurred Francolin	10
<u>Francolinus icterorhynchus</u> Yellowbilled Francolin	5
<u>Francolinus clappertoni</u> Clapperton's Francolin	-
<u>Francolinus hildebrandti</u> Hildebrandt's Francolin	25
<u>Francolinus natalensis</u> Natal Francolin	2
<u>Francolinus hartlaubi</u> Hartlaub's Francolin	-
<u>Francolinus harwoodi</u> Harwood's Francolin	-

Species	Total
<u>Francolinus adspersus</u> Redbilled Francolin	-
<u>Francolinus capensis</u> Cape Francolin	4
<u>Francolinus sephaena</u> Crested Francolin	7
<u>Francolinus streptophorus</u> Ringnecked Francolin	-
<u>Francolinus psilolaemus</u> Montane Francolin	-
<u>Francolinus shelleyi</u> Shelley's Francolin	-
<u>Francolinus africanus</u> Greywing	-
<u>Francolinus levillantoides</u> Archer's Greywing	-
<u>Francolinus levillanti</u> Redwinged Francolin	-
<u>Francolinus finschi</u> Finsch's Francolin	-
<u>Francolinus coqui</u> Coqui Francolin	2
<u>Francolinus albogularis</u> Whitethroated Francolin	-
<u>Francolinus schlegelii</u> Schegel's Banded Francolin	-
<u>Francolinus lathamii</u> Latham's Francolin	-
<u>Francolinus nahani</u> Nahan's Francolin	-
<u>Francolinus pondicerianus</u> Grey Francolin	60
<u>Francolinus gularis</u> Swamp Partridge	2
<u>Rhizothera longirostris</u> Longbilled Partridge	-

ODONTOPHORINAE  
NEW WORLD QUAIL

Species	Total
<u>Dendrotyx barbatus</u> Bearded Tree Quail	-
<u>Dendrotyx macroura</u> Longtailed Tree Quail	-
<u>Dendrotyx leucophrys</u> Buffycrowned Tree Quail	-
<u>Oreortyx pictus</u> Mountain Quail	164
<u>Callipepla squamata</u> Scaled Quail	370
<u>Callipepla californica</u> California Quail	736
<u>Callipepla gambelii</u> Gambel's/Desert Quail	288
<u>Callipepla douglasii</u> Douglas/Elegant Quail	36
<u>Philortyx fasciatus</u> Barred/ Banded Quail	-
<u>Colinus virginianus</u> Bobwhite Quail	1570
<u>Colinus virginianus ridgewayi</u> Masked Bobwhite Quail	142
<u>Colinus nigrogularis</u> Blackthroated Bobwhite Quail	-
<u>Colinus cristatus</u> Crested Bobwhite Quail	29
<u>Odontophorus guanensis</u> Marbled Wood Quail	-
<u>Odontophorus capuiera</u> Spowinged Wood Quail	26
<u>Odontophorus erythrops</u> Rufousfronted Wood Quail	-
<u>Odontophorus atrifrons</u> Blackfronted Wood Quail	-
<u>Odontophorus melanonotus</u> Darkbacked Wood Quail	-
<u>Odontophorus hypervivrus</u> Chestnut Wood Quail	-
<u>Odontophorus speciosus</u> Rufousbreasted Wood Quail	-
<u>Odontophorus strophium</u> Gorgeted Wood Quail	-
<u>Odontophorus dialeucos</u> Taccarcuna Wood Quail	-
<u>Odontophorus columbianus</u> Venezuelan Wood Quail	-
<u>Odontophorus leucolaemus</u> Whitethroated Wood Quail	-

Species	Total
<u>Odontophorus balliviani</u> Striped Wood Quail	-
<u>Odontophorus stellatus</u> Starred Wood Quail	-
<u>Odontophorus guttatus</u> Spotted Wood Quail	-
<u>Dactyortyx thoracicus</u> Singing Quail	10
<u>Cyrtonyx montezumae</u> Montezuma/Mearns Quail	61
<u>Cyrtonyx ocellatus</u> Ocellated Quail	16
<u>Rhyrchortyx cinctus</u> Tawnyfaced Quail	-

MEGAPODLADAE  
MEGAPODES

Species	Total
<u>Macrocephalon maleo</u> Maleo Fowl	**
<u>Aepypodius arfakianus</u> Wattled Brush Turkey	4
<u>Aepypodius bruijnii</u> Bruijn's Brush Turkey	**
<u>Alectura lathamii</u> Brush Turkey	2
<u>Megapodius laepousee</u> Marianas Scrub Hen	**
<u>Megapodius pritchardii</u> Polynesian Scrub Hen	**
<u>Megapodius wallacei</u> Moluccas Scrub Hen	**
<u>Megapodius freycinet</u> Common Scrub Hen	-
<u>Talegalla fuscrostris</u> Black-billed Brush Turkey	-
<u>Talegalla jobiensis</u> Brown-coloured Brush Turkey	-
<u>Talegalla cuvieri</u> Red-billed Brush Turkey	-
<u>Leipoa ocellata</u> Mallee Fowl	33

*PHASIANINI*  
PHEASANTS & PEAFOWL

Species	Total
<u>Ithaginis cruentis</u> Blood Pheasant	5
<u>Tragopan satyra</u> Satyr Tragopan	583
<u>Tragopan blythi</u> Blyth's Tragopan	31
<u>Tragopan temmincki</u> Temminck's Tragopan	562
<u>Tragopan caboti</u> Cabot's Tragopan	126
<u>Pucrasia macrolopha</u> Kokjas	207
<u>Lophophorus impeyanus</u> Himalayan Monal	798
<u>Gallus gallus</u> Red Junglefowl	651
<u>Gallus lafayetiei</u> Ceylon Junglefowl	77
<u>Gallus sonnerati</u> Sonnerat's Junglefowl	231
<u>Gallus varius</u> Green Junglefowl	225
<u>Lophura leucomelana hamiltoni</u> White-crested Kalij	292
<u>Lophura l. leucomelana</u> Nepal Kalij	352
<u>Lophura leucomelana moffitti</u> Black Kalij	34
<u>Lophura leucomelana lathamii</u> Black-breasted Kalij	36
<u>Lophura leucomelana lineata</u> Lineated Kalij	238
<u>Lophura nycthemera</u> Silver Pheasant	1835
<u>Lophura edwardsi</u> Edward's Pheasant	418
<u>Lophura swinhoii</u> Swinhoe's Pheasant	802
<u>Lophura imperialis</u> Imperial Pheasant	4
<u>Lophura inornata inornata</u> Salvadori's Pheasant	
<u>Lophura erythrophthalma erythrophthalma</u> Malay Crestless Fireback	115
<u>Lophura erythrophthalma pyronota</u> Bornean Crestless Fireback	33
<u>Lophura l. ignita &amp; ignita nobilis</u> Bornean Crested Fireback	266

Species	Total
<u>Lophura ignita rufa</u> Malay Crested Fireback	163
<u>Lophura diardi</u> Siamese Fireback	650
<u>Lophura bulweri</u> Bulwer's Wattled Pheasant	11
<u>Crossoptilon crossoptilon</u> White Eared Pheasant	355
<u>Crossoptilon mantchuricum</u> Brown Eared Pheasant	399
<u>Crossoptilon aurilum</u> Blue Eared Pheasant	439
<u>Catreus wallichi</u> Cheer Pheasant	363
<u>Symaticus eliotti</u> Elliot's Pheasant	482
<u>Symaticus h. humiae</u> Hume's Bar-tailed Pheasant	340
<u>Symaticus mikado</u> Mikado Pheasant	471
<u>Symaticus soemmerringi scintillans</u> Scintillating Copper Pheasant	106
<u>Symaticus s. soemmerringi</u> Soemmerring's Copper Pheasant	26
<u>Symaticus soemmerringi ijimai</u> Ijima's Copper Pheasant	76
<u>Symaticus reevesi</u> Reeve's Pheasant	908
<u>Phasianus versicolor versicolor</u> Southern Green Pheasant	226
<u>Phasianus versicolor robustipes</u> Northern Green Pheasant	51
<u>Phasianus colchicus principalis</u> Prince of Wales Pheasant	8
<u>Chrysolophus pictus</u> Golden Pheasant	7488
<u>Chrysolophus amherstiae</u> Lady Amherst's Pheasant	2128
<u>Polyplectron chalcurem</u> Sumatran Bronze-tailed Peacock Pheasant	71
<u>Polyplectron gerraini</u> Germain's Peacock Pheasant	194
<u>Polyplectron bicaratum</u> Grey Peacock Pheasant	729
<u>Polyplectron malacense</u> Malay Peacock Pheasant	102
<u>Polyplectron emphanum</u> Palawan Peacock Pheasant	429

*PHASIANINI*  
PHEASANTS & PEAFOWL

Species	Total
<u>Polyplectron inopinatum</u> Mountain Peacock Pheasant	1
<u>Argusianus a. argus</u> Malay Great Argus	172
<u>Argusianus argus gravi</u> Bornean Great Argus	0
<u>Pavo cristatus</u> Indian Peafowl	3422
<u>Pavo muticus muticus</u> Javanese Green Peafowl	802
<u>Pavo muticus imperator</u> Indo-Chinese Green Peafowl	59
<u>Pavo muticus spicifer</u> Burmese Green Peafowl	8
<u>Afropavo congensis</u> Congo Peacock	47

*TETRAONINAE, MELAGRIDINAE*  
& *NUMIDINAE*  
GROUSE, TURKEYS &  
GUINEAFOWL

Species	Total
<i>MELAGRIDINAE</i>	
<u>Meleagris gallopavo</u> American Turkey	4
<u>Ag rocharis ocellata</u> Ocellated Turkey	17
<i>NUMIDINAE</i>	
<u>Agelastes meleagrides</u> White Breasted Guineafowl	1
<u>Numida meleagris</u> Black Guineafowl	8
<u>Guttera edouardi</u>	13
<u>Acryllium vulturinum</u> Vulturine Guineafowl	30

*TETRAONINAE, MELAGRIDINAE*  
& *NUMIDINAE*  
GROUSE, TURKEYS &  
GUINEAFOWL

Species	Total
<u>Centrocercus urophasianus</u> Sage Grouse	5
<u>Dendragapus falcipennis</u> Sicklewing Grouse	4
<u>Dendragapus canadensis</u> Spruce grouse	28
<u>Dendragapus obscurus</u> Blue Grouse	32
<u>Bonasa sewerzowi</u> Severtzov's Hazel Grouse	1
<u>Bonasa bonasia</u> Hazel Grouse	17
<u>Bonasa umbellus</u> Ruffed Grouse	115
<u>Lagopus lagopus</u> Willow Grouse/Ptarmigan Red Grouse	62
<u>Lagopus mutus</u> Ptarmigan Rock Ptarmigan	6
<u>Lagopus leucurus</u> Whitetailed Ptarmigan	4
<u>Tetrao mlokosiewiczii</u> Caucasian Black Grouse	1
<u>Tetrao tetrix</u> Black Grouse	61
<u>Tetrao parvirostris</u> Blackbilled Capercaillie	1
<u>Tetrao urogallus</u> Capercaillie	83
<u>Tympanuchus phasianellus</u> Sharp-tailed Grouse	36
<u>Tympanuchus cupido</u> Prairie Chicken	64

## SARAHAN PHEASANTRY - Gillian Stewart

Nestling on the side of a mountain in Himachal Pradesh (NE India), with a wonderful view over the carved Hindu temple down below, the Sutlej river deep at the bottom of the valley, and the snow-clad Himalayas just across the river, Sarahan Pheasantry has to be the most spectacularly situated collection I have ever seen. It also has some spectacular birds. Sensibly for a pheasantry at 2135m with up to five feet of snow for two months of each year, it concentrates on high altitude species. There are Koklass and White-crested Kalij, Common Hill Partridge and Chukor, and a host of Himalayan Monals - a sign of the enviable breeding success that Sarahan has with this species.

Sarahan's fame, however, lies with its Western Tragopans - Sarahan is the only collection in the world to house this endangered species, and this year they succeeded in raising their first Western Tragopan chick.

There are four Western Tragopans at Sarahan. The breeding female has been there the longest - she arrived in January 1990. Her mate has been there since January 1993. He replaces an earlier male which died. There is also a spare female and, of course, the star of the show, the young male which was bred this year and is presumably destined to be paired up to the spare female.

The breeding female laid three eggs in 1991 and six eggs in 1992, but none of these eggs hatched. This years three eggs were set under a bantam. Two chicks hatched on 25 June. Sadly, one chick died after nine days but the second chick has gone on to become the first Western Tragopan raised in captivity this century, and the only captive bred Western Tragopan anywhere in the world at present. The young bird, which was six months old when I saw it in November 1993, was in excellent health, and was very similar in appearance to the adult female. The neck however, was red with a tinge of brown to it.

Sarahan is now facing a problem common to many collections - with only 21 aviaries, and increasing breeding success, it is now becoming difficult to find room for young birds. Hopefully, they will be able to rectify this problem and to fine-tune their relatively minor other problems of feed and health care, and so continue to supply a competent life-line to Himachal's high altitude pheasants. I am especially hopeful that they can continue to successfully raise Western Tragopans and can establish the species in captivity.

I would like to end by congratulating the Himachal Pradesh Wildlife Department and, in particular, the staff at Sarahan, for its well thought out and tended pheasantry, and for its breeding success with the Western Tragopan. Well done, and keep up the good work.

*Gillian Stewart, Glenalua Lodge, Killiney, Co Dublin, Ireland.*

## WPA SPECIALIST GROUP ROUND-UP

The following article is taken from The Cracid Newsletter volume 2 number one edited by Richard Bucholz and Angela Schmitz. WPA members wanting to join the Cracid Group and receive the full newsletter should write to the Editorial Office, Department of Zoology, 223 Bartram Hall, University of Florida, Gainesville, Florida 32611, USA.

### FIRST REINTRODUCTION OF AN ENDANGERED CRACID

Geer Scheres

The Red-billed Curassow *Crax blumenbachii* used to be very common in the rainforests on Brazil's Atlantic coast. Unfortunately this species has almost disappeared in nature due to deforestation. Because the only rainforest remaining in their historical range is restricted to several nature reserves and some other isolated patches, it is doubtful that a viable population remains anywhere in Brazil. Studies are in progress to find out the actual status of the species in the wild.

Meanwhile the species is the subject of a conservation programme conducted by the conservation organisation Crax from Copntaggem, close to Belo Horizonte in the state of Minas-Gerais. Started as a private initiative by Roberto Azeredo and James Simpson, the programme relies on Mr Azeredo's 20+ years of avicultural experience, and technical and financial help from Stichting Crax in the Netherlands, the CBCC in Belgium, and Ceniubra in Brazil. It promises to be the first successful breeding and reintroduction project for an endangered cracid species.

#### Status of the Red-billed Curassow in captivity

Originally this large-scale captive breeding effort began with only four founding individuals, however five additional bloodlines were added at a later date. This population has produced several hundred *C. blumenbachii*, which with the addition of individuals in other collections in Brazil and elsewhere brings the estimated number of *C. blumenbachii* in captivity to between 400-450 specimens. Although *C. blumenbachii* is one of the most common curassows in captivity, all of these birds are located at a very few locations.

Maintaining an endangered species in captivity can only be justified if the objective is to use those individuals for the conservation of the species. Although there are not many examples of saving a species in the wild by releasing captive

bred animals, the reintroduction of the whooping crane and the Hawaiian nene show that it is possible.

### **Reintroduction objectives**

If the available stock of captive *C. blumenbachii* is to produce a new and viable population of this species in the wild, it will be necessary to collect scientific data about the reintroduction needs of these birds. With very little information on this topic in the literature, the coordinators of the project decided that the main objectives of this experimental reintroduction would be:

1. To study the ways in which captive cracids can be prepared for reintroduction;
2. To study the ways to collect data about their behaviour during the processes of preparation, release and after release;
3. To study the best way that they can be adapted to accept their natural habitat.

Before attempting reintroduction the following factors needed to be arranged:

1. Selection, screening, and preparation of releasing area;
2. Selection, screening, and preparation of the birds to be released;
3. Selection and training of skilled and unskilled personnel including guards;
4. Securing sufficient financing;
5. Adoption of measures to ensure that the releasing area will be dedicated to the project in perpetuity;
6. Acceptance and endorsement of the experiment by the authorities.

### **The release area**

An area of 1,460 ha of regenerating rainforest was chosen for the reintroduction site. This land is owned by Cenibra, a well known company in Brazil, whose representative Mr Luis Roberto Capitani manages this project. Cenibra has sponsored the scientific studies, infrastructure, aviaries and labour force at the release site, including permanent guards.

Basic field research at the site was made by Fundacao Biodiversitats, a reputable scientific organisation from Minas Gerais, to complement Crax's and Cenibra's information on food, water, predators and competitors.

To make it possible to study the birds after release, small paths were made into the forest and observation huts were constructed near selected drinking places. Also a base camp where the biologists and ornithologists could stay over night was provided. The releasing area is surrounding by the Rio Doce river, very young eucalyptus plantations (for the production of cellulose), pasture land and a 700m wide zone without trees, coincidentally caused by the harvest of older eucalyptus. These zones are useful to prevent the birds from escaping the release site.

To help adapt the birds for release, a 20x14x12m high aviary was constructed in the forest. It was necessary during the process of preparation of the release area to provide a means by which the birds could be recaptured should this be necessary.

### **The birds to be released**

Fifteen pairs of *C. blumenbachii* were selected out of Crax's collection at Contagem and carefully screened for diseases and parasites. After a quarantine of six weeks they were brought to the aviary in the forest in December 1990. The birds were about one and a half years old, had been raised in a single group since the age of two months, and were banded with closed legbands, which had been individually made for each bird, indicating date of birth, individual registration number and the registration number of their parents.

### **The first experimental release**

During the beginning of the adaptation phase the birds in the huge aviary were fed with their normal food: a pellet with grains and additional vitamins and fruits. After 6-12 weeks the ration of pellet food was reduced and instead lots of vegetation, shoots, leaves and fruits were given, especially from plants existing in the release area. The birds were observed eating many insects as well.

On the day of release, 1 September 1991, the doors of the big aviary were opened early in the morning and, after some normal hesitation, one curassow after another carefully took the first steps to freedom. As they got out, the curassows searched for food in the rich ground of the forest, behaving as calmly as if they were still inside the aviary.

Soon after release one male started nesting attempts 15m from the aviary. Two more males did the same on the following days. One female never left the aviary and was helped to do so. At the end of the first day out, all the birds but one climbed neighbouring trees and slept the whole night there. The one bird who did not sleep in a tree, a female, chose the top of the aviary as a resting place, but only for the first night. In the months after the release the birds dispersed gradually throughout the reserve and seemed to adapt very well to their new environment, in fact nesting activities continued to be observed.

One year after the release of the 30 individuals, four had been killed by predators, mostly wild cats and possibly foxes. And although the forest was very well guarded, and educational programmes were conducted in the neighbouring settlements, two birds were caught by illegal hunters, who took off their leg bands and were trying to sell them. These birds were taken out of the programme because their parentage could no longer be identified. One female was found



dead without any external signs of predation four months after release. We estimate that about 20 of the birds which were released still live in the reserve.

The second release is in preparation now. Thirty seven birds arrived at the big aviary in July with the intention of releasing them at the end of this year or in the beginning of the next one. Radio-telemetry will be used to monitor the movements of some of these birds, although the open and accessible nature of the forest has made it easy to observe the birds without telemetry. The birds also will be marked with different combinations of colour bands, to allow observers to recognize them individually.

We are hopeful that this release will be even more successful than the first, and that more data and information will be collected to be used in the continuation of the conservation project and in similar programmes for cracids.

The releasing experiment was encouraged and endorsed by the Brazilian environmental authorities, mainly Ibama, through Alison Jose Coutinho, Paulo de Tarso Zuquim Antes and Christiane Encarnacoa, among others.

*For information about the Red-billed Curassow Reintroduction Project please contact: Stichting Crax, PO Box 1312, 6201 BH Maastricht, The Netherlands.*

## PQF NEWS

*The following snippets from the Partridge, Quail and Francolin Specialist Group are taken from PQF News issue No 4 1993 from their section 'Around the Regions'. Members wishing to join this group and receive the full newsletter should write to: PQF News, The Game Conservancy Trust, Fordingbridge, Hants SP6 1EF, UK.*

### **INDIA - Swamp Francolin Project**

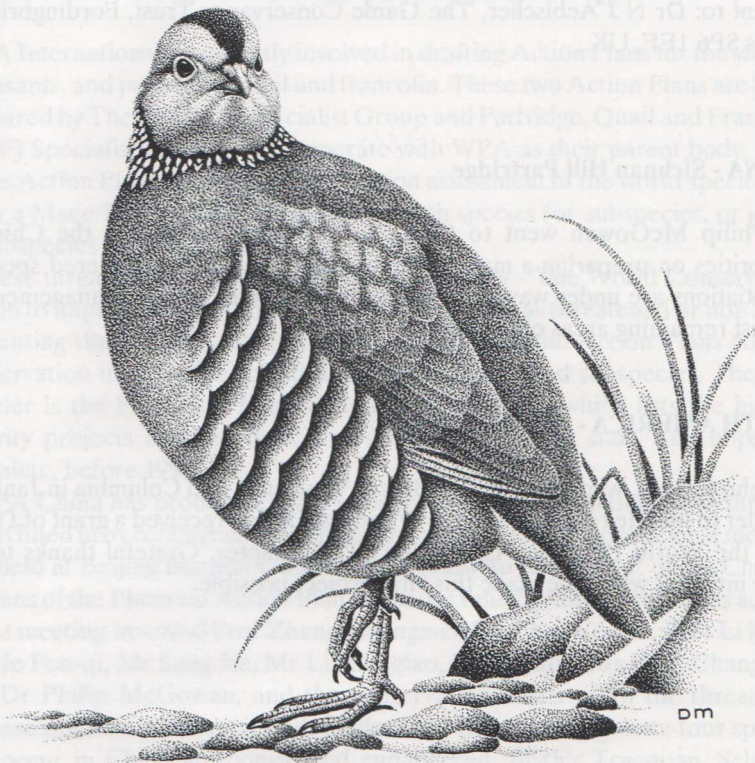
A major new project on this vulnerable species has been started in the Terai grassland of north-west India, under the supervision of Dr Asad Rahmani. Perwez Iqbal will be studying the Swamp Francolin for a Masters degree as part of the project which is based at Aligarh Muslim University's Centre for Wildlife and Ornithology. His first task will be to survey the remaining areas of appropriate habitat in Uttar Pradesh in order to assess the population status of the bird and it is hoped to follow these studies up with a radio telemetry study to determine habitat choice during the breeding season. This project has been made possible by generous sponsorship from The People's Trust for Endangered Species, The International Trust for Nature Conservation and British Airways Assisting Nature Conservation.

## Indian Mountain Quail

Brigadier Ranjit Talwar is collecting all information on this species which was last seen in the wild in 1876. He is planning an expedition to the area of the Western Himalayas where the species occurred, in order to establish if the Indian Mountain Quail still survives in the wild. Anyone with relevant information is asked to send it to: Brigadier Talwar, c/o WWF India, PO Box 3058, 172-B Lodi estate, New Delhi 110 003, India.

## EUROPE - Barbary Partridge

Information is urgently required on Barbary Partridge population status, trends, threats and conservation requirements in Sardinia and the Canary Islands. This information is to be used in the forthcoming book *Where to watch birds in Europe*.



*Barbary Partridge* by David Mead

## **Grey Partridges**

Figures obtained recently from local sources indicate that numbers of Grey Partridges in Switzerland are down to 20 pairs and work is continuing to try to prevent the extinction of the species altogether.

In Ireland, the population is currently approximately 200 pairs. A new project on genetic finger printing of Grey Partridges is underway, using wild and game farm birds from several different countries. Blood samples from birds in other countries are needed for the project, in particular from North America. Details of where and how to send samples can be obtained from Dr Brendan Kavanagh, Biology Division, Royal College of Surgeons, St Stephen's Green, Dublin 2, Republic of Ireland.

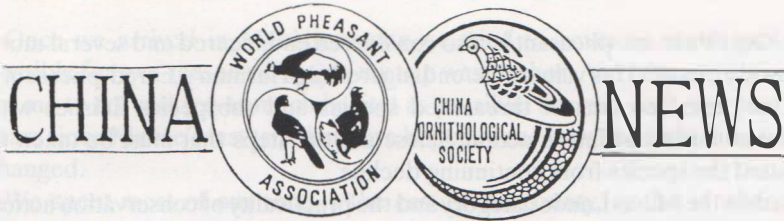
Similar information is also required for *Alectoris* species within European countries in the eastern Mediterranean and the Balkans. All information should be sent to: Dr N J Aebischer, The Game Conservancy Trust, Fordingbridge, Hants SP6 1EF, UK.

## **CHINA - Sichuan Hill Partridge**

Dr Philip McGowan went to China in November to advise the Chinese authorities on preparing a management strategy for this endangered species. Negotiations are under way to ensure some degree of habitat management in the last remaining areas of the species.

## **SOUTH AMERICA - Wood-Quails**

Dr John Carroll, who plans to visit Brazil, Venezuela and Columbia in January in order to initiate research into the Wood-quails, has received a grant of £1200 from the World Pheasant Association's UK Chapter. Grateful thanks to all those involved who have made this vital project possible.



*Issue number four of WPA China News has just been received from its Editor, Ding Changqing who has taken over the job whilst Zhang Zhengwang is away working on a project in the Antarctic. We have reproduced two articles by Dr Philip McGowan resulting from his visit there in November, thanks to sponsorship by British Airways Assisting Nature Conservation and Corico International. We are most grateful to both organisations for making this vital visit possible.*

### **Action Plans for pheasants and PQF**

WPA International is currently involved in drafting Action Plans for the world's pheasants, and partridge, quail and francolin. These two Action Plans are being prepared by The Pheasant Specialist Group and Partridge, Quail and Francolin (PQF) Specialist Group, which operate with WPA as their parent body. Each of the Action Plans presents a conservation assessment of the world species and gives a Mace-Lande threat category for each species (or subspecies, or group of subspecies in some cases).

These threat categories are an attempt by IUCN - The World Conservation Union to improve the method for classifying species as threatened or not. After presenting these threat categories for each species, the Action Plans contain conservation information for all threatened species and subspecies. The final chapter is the Five Year Plan of Action (1994-1998), which lists the highest priority projects that the Specialist Groups will try to start, and hopefully complete, before 1998.

WPA China has produced much information for these Action Plans through forms filled in by colleagues throughout the country. On 20 November, a meeting was held at Beijing Normal University to review an initial draft of the Chinese sections of the Pheasant Action Plan and more valuable information was added.

The meeting involved Prof Zheng Guangmei, Prof Xu Weishu, Prof Li Fulai, Mr He Fen-qi, Mr Song Jie, Mr Li Xiangtao, Mr Li Jinlu, Mr Ding Changqing and Dr Philip McGowan, and the conservation status of all the threatened Chinese pheasants was reviewed. Under the Mace-Lande system, four species that occur in China are considered endangered, Blyth's Tragopan, Sclater's Monal, Brown Eared-pheasant and Reeves' Pheasant. The Hainan subspecies

of the Grey Peacock-pheasant is also considered endangered and several more species are classified as vulnerable/endangered (eg Harman's Eared-pheasant). Each of these accounts of threatened species and subspecies finishes with recommendations of future action. These are the steps that must be taken to safeguard the species from continuing decline.

Based on the Mace-Lande category and the practicality of conservation action taking place in the next five years, key projects will be outlined in the last chapter of the Action Plan. Worldwide, there will be about 20 high priority projects, of which six are Chinese. These six projects are: Surveys in SW China, Ecology and Management of Cabot's Tragopan, Hainan Island's Endemic Galliformes, Studies of the Brown Eared-pheasant, Studies of the Reeves's Pheasant and the setting up of a National Database for all Galliformes Localities. These projects are considered the highest priorities for pheasant conservation in China, but the plan lists many tasks facing conservationists. The Five Year Plan of Action of the PQF Specialist Group also contains about 20 worldwide priority projects. As well as the Hainan Island Endemic Galliformes and the National Galliformes localities database, this plan includes recommendations for the conservation of the Sichuan Hill-partridge as one of the most urgent tasks facing the world's Galliformes conservationists.

The two Action Plans will be further reviewed before being sent to the Species Survival Commission of IUCN for publication early in 1994. WPA International could not have managed this task without the help of our colleagues throughout Asia and the production of the Action Plans is the result of a wonderful, co-operative effort. The next step is to implement the Plans and so help conserve our pheasants and partridges for all times.

### Visit to Sichuan Hill-partridge habitat

The Sichuan Hill-partridge *Arborophila nufipectus* is perhaps China's most threatened gamebird. WPA International and the PQF Specialist Group are concerned about the future of this partridge, which is also one of the world's rarest galliformes.

Accompanied by Mr He Fen-qi of the Zoological Institute, Academia Sinica, I visited part of the species' range in late November. First, we met Prof Li Gui-yuan of Sichuan Agricultural University at Ya'an. Professor Li is responsible for much of our knowledge of the hill-partridge as he first described the female and also the nest, eggs and calls. He also has a number of skins collected in the early 1970s and, with Ben King, discovered the Mt Huanglian population of the partridge. Prof Li gave us very useful background information on his work and kindly showed us his unique collection of Sichuan bird skins.

Once we arrived in Mabian county we tried to cover as much ground as possible for two reasons. First, as my trip was so short, the best use of time was for me to try and see as much habitat as possible. Second, as it was nearly two years since Mr He's last trip there, we hoped to see how much the situation had changed.

We spent most of our time in the east of the county, as this is where most suitable habitat is likely to be found. The centre of the county is too low and extensively cultivated and much of the land to the west and north is too high. It is believed that there is a large block of suitable habitat, from which locals report the partridge, in the south of the county in the Fourth District. There are no roads into this area, so although this meant that we could not visit the area, it does offer some hope that the Sichuan Hill-partridge still exists in untouched forest there.

During our trip, we were able to add a new locality for the species when a single bird was heard calling at Tianba on the eastern boundary of the county. There, the boundary between Mabian and the counties to the east (Machuan and Pingshan) runs along a mountain ridge. This makes the habitat quite inaccessible for survey but also means that much of the forest is on land too steep to log. This patch of forest may be continuous with the north-east of the county.

The partridge population at Mt Huanglian was discovered by Prof Li and Ben King in 1985 and is contained within a forestry farm. Whilst much of the farm is now logged and replanted with a mixture of fir trees, there is some possibility that a small number of the partridge might still exist. Several patches of apparently suitable habitat remain and are unlikely to be logged and the bird has been recorded in the conifer plantations close to the farm headquarters.

Reports such as these, however hopeful, cannot hide the fact that this species deserves conservation attention. A fully protected area, for example the forest in the Fourth District, would secure the future of this small partridge. Surveys in all counties from which the species is reported are needed so that protection measures will be based on sound information. In addition, the occurrence of the bird in the various habitats at Mt Huanglian would help in making realistic management proposals.

I should like to take this opportunity to thank British Airways Assisting Nature Conservation, and all the colleagues who have made this short trip to China so enjoyable and productive. In Sichuan, I thank Mr Hu Tie-qing, Director of the Office of Wildlife Conservation Management and Mr Yuan Shi-jun of the Office of Foreign Affairs, Provincial Forestry Department for their help. Mr Zeng Zhao-qun at Mt Huanglian was also most kind. Very many thanks to them for the success of the trip.

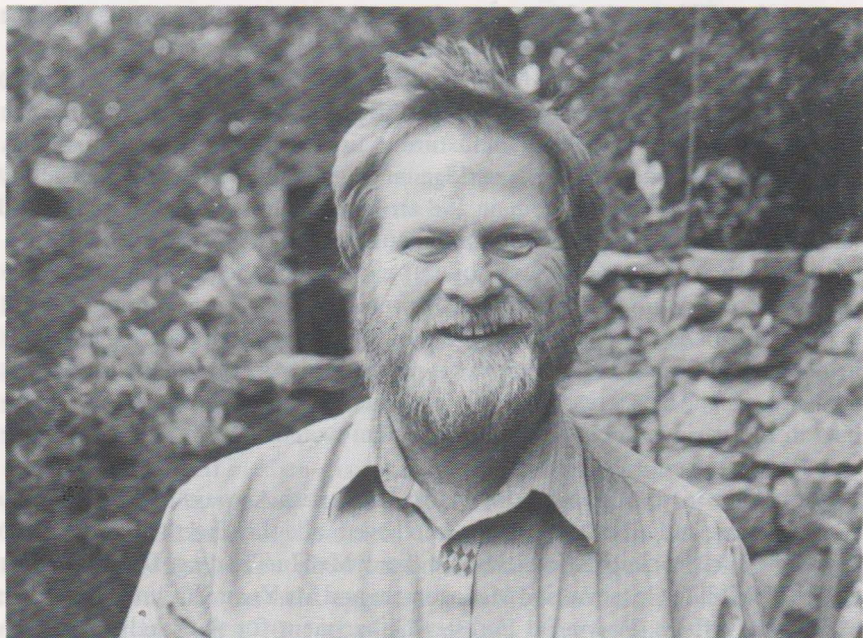
## RED GROUSE IN CANADA

### Keith Howman

One of the most beautiful pieces of art that I have ever seen, consisting of a hand carved and painted wood carving of a Red Grouse, was presented to me in Canada by Mr Larry Scott on behalf of himself and WPA Canada for fundraising for WPA International.

The piece is exactly to scale and is exact in every detail. In Canada and North America wood carvings are often more in demand than paintings and a piece of this quality which won first prize in the 1993 Canadian National Decoy Contest would be expected to fetch at least \$4-5000 if sold in Canada.

A photograph of it is depicted on the front cover - it represents some four months work by Larry Scott and is a unique piece. We plan to auction it later in the year but in the meantime if any member would like to put in a tempting offer to us it will be considered. The 'Red Grouse' can be viewed by appointment by ringing me on 0932 254855.



Larry Scott

Photo: Keith Howman

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## BOOK REVIEWS

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### THE ALTAI SNOWCOCK

An interesting booklet from the Russian Academy of Sciences (Siberian Division) has reached us. It is published in both Russian and English and is comprehensively illustrated with colour photographs.

It begins by reviewing the status of the Altai Snowcock which, due to the drastic reduction in its numbers, was registered in the Red Data Book in 1978. Its problems have been brought about by domestic animals destroying the vegetation and encouraging proliferation of predators such as wolves.

The booklet covers the ecology and the captive breeding of the species and it may be possible for us to obtain copies of it if there is sufficient interest. The cost is likely, because of the difficulty of obtaining and transporting them, to be in the region of £10. Please do not send any money but if you are interested in obtaining a copy write to Jan Readman at WPA HQ.



### THE BROWN EARED-PHEASANT



Li Xiangtao who works at the Natural History Museum in Beijing and Liu Rusun have produced another excellent booklet, this time on the Brown Eared-pheasant, to follow the one on the Temmincks Tragopan.

Li Xiangtao has personal field experience of the Brown Eared-pheasant and worked on a WPA sponsored project on the new population of Brown Eared-pheasants found in the area of Dongling Mountain, Beijing which he estimated to be about 500 birds.

The booklet is well illustrated with colour photographs on front and back cover and many maps and black-and-white photographs. It covers their distribution, status and habitat, the relationship between the three species of Eared Pheasants, as well as their breeding behaviour in captivity. There is also an excellent reference section at the end. The booklet will be available from WPA HQ, price £10 including p&p.



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## NOTES AND NEWS

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### EDWARDS'S PHEASANTS

As this WPA News reaches you hopefully several new initiatives will be getting under way for the Edwards's Pheasant. Dr Karrie Rose will be starting her work to see if semen from Edwards's Pheasants can be stored without loss of fertility. Han Assink, the Chairman of WPA's Captive Breeding Advisory Committee, will be on his way to Hanoi and co-ordination of

populations of Edwards's Pheasants in key countries will be further developed.

The four European Chapters of WPA - Germany, France, Benelux and UK - have all donated a pair of Edwards's to Hanoi Zoo which has never displayed the species. The despatch of them has been approved at both ends and as I write the logistics are being worked upon with the hope that mid-February will be the despatch date. More of this in our next newsletter.



*Karrie Rose in Edwards's Pheasant T-shirt.*

*Photo: Keith Howman*

## PHEASANTS IN SARAWAK

A long time member of WPA is Lim Tiang Kim whose excellent photograph of the Crimson Headed Wood Partridge appeared on the cover of WPA News 28. Lim is an ex Senior Police Officer and writes to say that he is setting up a travel company to offer nature tours which may be of special interest to WPA members.

He indicates that he can arrange tours to see Bulwers Wattled Pheasant, Long Billed and Crimson Headed Wood Partridge, wild cats, orangutan *etc* and visits to national parks, turtle islands, native long houses, niah birds caves *etc*.

Members visiting Malaysia who

might be interested should contact Lim Tiang Kim, c/o Srido Enterprise, Lot 424, 12G Nanas Road, Satok, 93400 Kuching, Sarawak, East Malaysia. Tel 082 481 622 or fax 082 421 242.

## SCHOOL EDUCATION IN CANADA

Dinesh Uniya, a member of WPA Canada committee, made up a simple and ingenious cage for Chinese Painted Quail from a kitchen table (the drawer pulls out to replace feed and water) and some timber framing. This was presented to his local school in Niagara along with WPA posters and educational material.



*The new quail aviary set up in a classroom at the school. Keith Howman, Director General of WPA International, is giving a short impromptu talk to the children on the value of gamebirds to man.*

*Photo: Dinesh Uniya*

## **JWPT SUMMER SCHOOL**

Jersey Wildlife Preservation Trust is rightly renowned for the training it has provided for zoo personnel from all over the world. Each year it holds a summer school which in 1994 will be from 30 July to 20 August. It is designed for students, zoo veterinary staff, and those with an interest in conservation and or captive animals.

Full details can be obtained by writing to The Summer School Co-ordinator, JWPT, Trinity, Jersey JE3 5BF, UK.

## **1994 GAME FAIR**

The 1994 CLA/Game Fair will be held from 29-31 July at Cornbury Park, Charlbury, nr Burford, Oxon. WPA has been allocated a large island site on the main arena and is currently looking for sponsors for the stand.

## **NEW WPA PROJECT SUPPORTER**

Corico International, which specialises in exports to the Far East and in particular promoting the sales of the Islay Malt Whisky Bruickladdich, is the most recent WPA Project Supporter.

Nick Wright, who runs Corico International, is a long time supporter of WPA and part of the

generous donation given will go towards work on the Sichuan Hill Partridge (see page 33).

## **ACADEMIC NOTE**

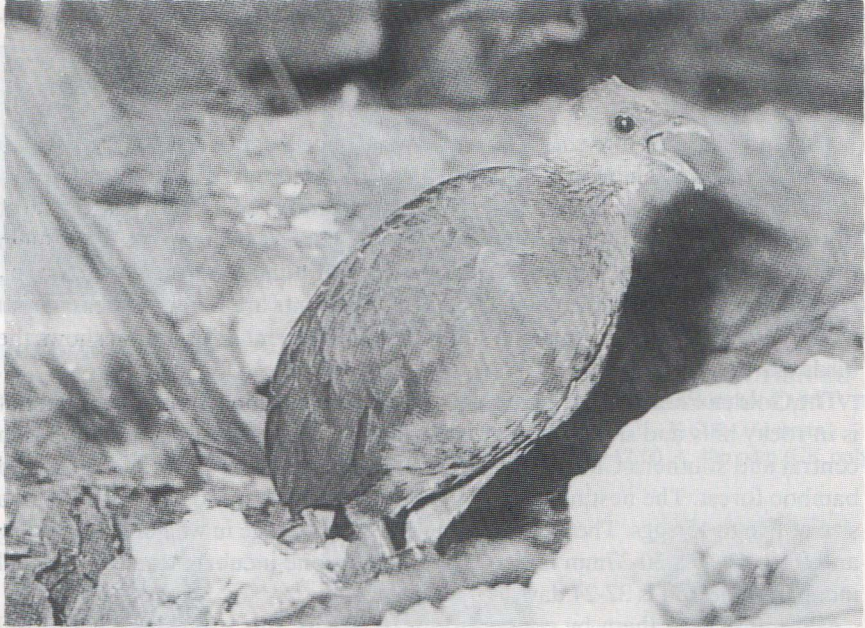
Our President, Professor Cheng, advises that the State Council has decreed that the Academic Members of the Chinese Academy of Sciences will from now on be called 'Academicians'. Professor Cheng is the only Academician in the field of ornithology!

## **COVENANTED THANKS**

We are grateful to those members who took out minimum four year covenants and have continued beyond the minimum period with their payments by bankers order.

## **MEGAPODE BOOKLET**

An excellent full colour booklet has been written by Dr Dieter R. Rinke, Lata H. Soakai and Alison Usback and published by Brehm Fund for International Bird Conservation. This booklet concerns the Malau which is found on Tonga's northern most island of Niuafu'ou. Although produced mainly as an educational booklet in both the local language and English for the people of Niuafu'ou, it provides a detailed account of this fascinating and rare bird. Copies available from WPA HQ, price £5 including p&p.



*The Malau appeals for help! From the cover of the new booklet by Dr Dieter Rinke (see previous page).*

## LOCATIONS OF BLYTH'S TRAGOPANS CURRENTLY RECORDED IN THE STUDBOOK

Country	Location	Males	Females
Benelux	Arcen	1	1
Canada	Aylmer I	9	7
Germany	Berlin	1	1
Canada	Burnaby	1	3
England	Farnham	1	1
Canada	London C	1	1
Germany	Luexheim	1	1
Germany	Monchengladbach	1	1
USA	New York	2	2
Scotland	North Berwick	0	1
England	Shepperton	1	1
Benelux	St Oedenrode	0	2
Canada	Surrey	1	0
Benelux	Weert	2	4
<b>TOTAL</b>		<b>29</b>	<b>31</b>

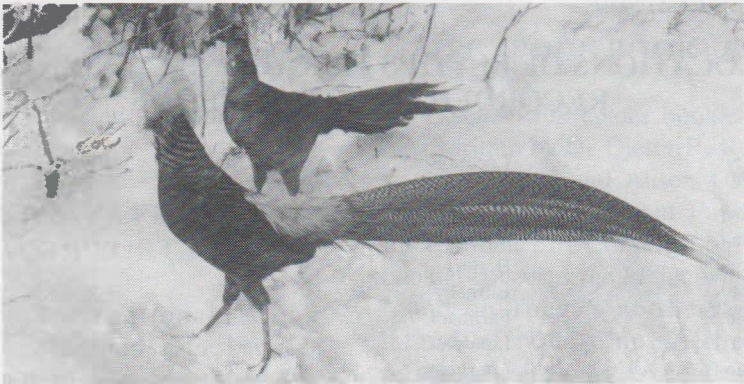
## DECLINE OF THE GOLDEN PHEASANT IN CHINA

Ma Ming

Golden Pheasants *Chrysolophus pictus* were once a common species in China but are no longer. These very beautiful birds have decreased in numbers rapidly in the last decade over large parts of their range and even extirpated from most of their historic distribution areas due to over-harvest by humans. Their main threats are intensive economic development and human population inflation, resulting in loss of suitable habitat. Golden Pheasants are hunted excessively in winter and their eggs are taken in summer. Much recent information shows the birds alarming decline.

The Golden Pheasant has particular significance in China. Its breeding habitat is in rocky hills and slopes of moderate altitude among scrub and bamboos in central and southern China. Most nests are found in thick growth of grass and bamboo forest. The nesting period is generally from April to July with a clutch size of five to 15 eggs. The eggs found in the wild average in weight from 23-32g and from 41-47 x 30-37mm in size. The female alone incubates and the normal incubation period is 22-24 days.

Man must help them by conservation, otherwise this exceedingly beautiful pheasant will soon disappear from our world.



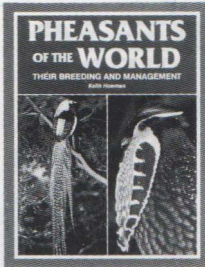
*Mature and immature Golden Pheasants photographed in the wild in China.*

*Photo: Ma Ming*

*Department of Zoology, Xinjiang Institute of Biology, Chinese Academy of Sciences, No 40 Beijing Road, Urumqi 830011, Xinjiang, China*

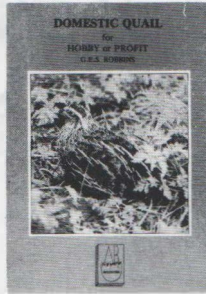
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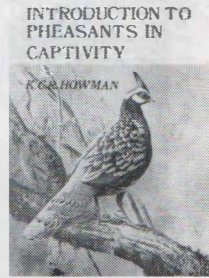
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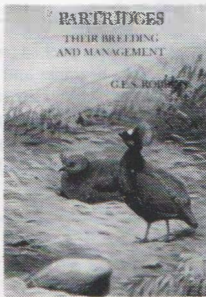
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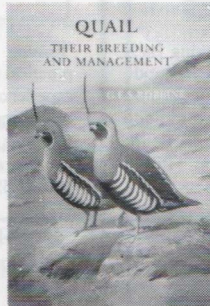
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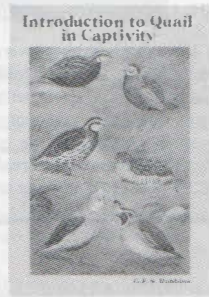
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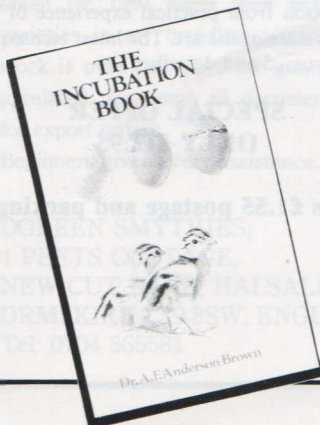
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## THE INCUBATION BOOK

BY

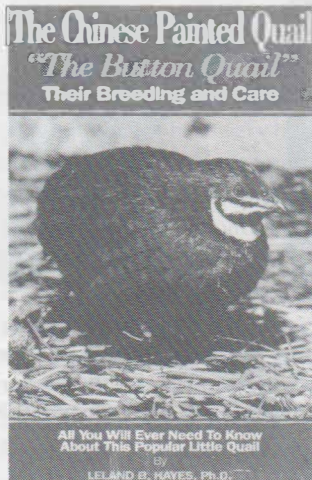
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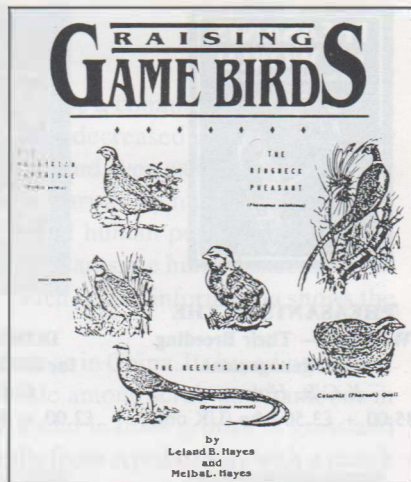
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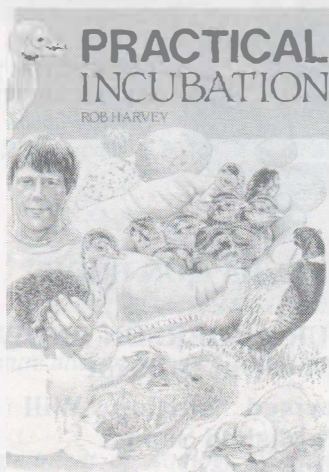
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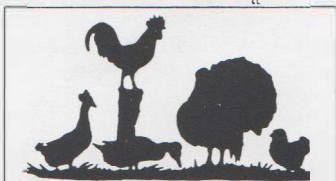
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