

The Partridge Letter

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As I See It ...

Welcome to all partridge lovers. This is the first issue of a new venture into the world of the partridge and francolin. There is not much literature about these birds and these 12 issues of the *Partridge Letter* will be an attempt to fill that vacuum. Every reader is guaranteed to learn something new in every issue. This is so important to the future of aviculture —the continual learning about the birds we love so much. Someone has said, “A day without learning is a day wasted”.



I love partridges! They are some of the most colorful birds kept by aviculturists. What a beautiful sight to see the intricate coloring and designs that their feathers make! The only way to really appreciate their beauty is to look at them up-close. Try looking at them in your hand and see what I mean.

The partridges and francolins kept in captivity are usually very hardy birds. Their keeper never has to worry about cold or hot weather as long as they have shelter from the cold wind and hot sun. They do not get as many diseases as quail. Most are hard to kill, which makes them a good aviary bird for anyone.

Many of the species of partridges kept in captivity are very tame and gentle. There is just something appealing about a beautiful, hardy, and tame and gentle bird. They will fly up to your hands for a treat or make you step around them when you visit their pen.

There are 10 or 12 species that are easily found in captivity. Two of these species are raised by the millions commercially which has brought down their price. Everyone that raises birds can easily afford several pairs of the Chukar partridge, for example. Of course, the more rare a species is, the higher the price becomes because of the law of “supply and demand”.

Several of the species kept in captivity are considered easy to keep and breed. If the aviculturist wants a challenge, there are several species of partridges that need special attention to raise successfully.

I am not sure where our paths will take us this coming year! I think J.R.R. Tolkien's words from *The Fellowship of the Ring* embrace this thought –

***“The Road goes ever on and on
Down from the door where it began.***

***Now far ahead the Road has gone,
And I must follow, if I can.***

***Pursuing it with eager feet,
Until it joins some larger way,***

***Where many paths and errands meet,
And whither then? I cannot say.”***

I love partridges! After 12 issues of this *Partridge Letter*, so will you!

What is a bird?

Many have asked that question and many have come up with many answers. In 1936 the following was written and it has not been improved upon to this day.

“If elegance of form, beauty of colouring, or sweetness of voice, were peculiarities which constituted the superiority of one class of beings over another, we should unquestionably assign to Birds the highest station in the scale of the animal creation. No shadow of fear mixes with those pleasurable sensations with which they are viewed; and those feelings, moreover, are heightened by the ethereal nature of the creatures themselves. In a moment they may spread their wings, launch into boundless air, and be seen no more. We almost view them as beings of a happier world, alighting upon this “dim spot called earth,” more as a place of temporary rest, in their voyage through the regions of space, than as their permanent abode ... of all intelligent beings, they alone are gifted with a musical voice, possessing both sweetness and varied expression. Their language, in some measure, is thus intelligible even to man, inspiring him with cheerfulness or melancholy. Hence it is, that from among birds the poets have selected their sweetest themes. They are both poetically and literally, the butterflies of vertebrate animals; flitting from one plant to another, living less on earth than in the air, and having their wings ornamental with feathers of bright or varied colours. In both we dimly see an indication of that existence which will separate the spirit of man from those cares, anxieties and allurements which chain him down to earth, as it was his final and only stage of action. It is highly probable that the ‘Sweet Psalmist of Israel’ had some such thought, when he longed for the wings of the dove, that he might flee from earth and be at rest.”¹ (Swainson, 1836)

The partridges, quails, and francolins comprise a nearly cosmopolitan group of 134 species of small to relatively large gallinaceous birds that are mostly non-migratory and terrestrially adapted. A short hind toe is always present, and at least all the forward-pointed toes have sturdy, blunt claws that are highly suitable for scratching and digging, as well as a short and blunt bill that serves for crushing hard food items. The wings are relatively short and rounded, making take-offs and flying energetically expensive, and protracted flights

¹ Psalms 55:6, (Book of Psalms, Old Testament)

unusual. Attempted escape from danger by crouching or running rather than by flight is frequent in many species.

Most species are monogamous with pair-bonds sometimes persisting between breeding seasons. Males of perhaps all species utter advertisement calls during the breeding season, proclaiming their own sexual availability, the holding of a breeding territory, or both. The carrying of nest materials for nest construction is apparently lacking in all. The nests vary from simple unlined scrapes on the ground to well-concealed and sometimes completely domed-over nests hidden within heavy vegetation. The young are initially largely insectivorous, and are often able to fly within two or three weeks of hatching. Parental distraction behavior by injury-feigning is typical and may be performed by either sex.

A few comments on the appropriate English application of the vernacular names ‘quail’, ‘partridge’, and ‘francolin’ might be in order. The English noun ‘quail’ has traditionally been used for the very small, short-tailed, and migratory species of *Coturnix*, which in Old French and Middle English were known as *quaille*. (The verb ‘quail’, to cower or shrink with fear, was probably more recently derived from the fuddling or crouching behavior of these birds when threatened.) The English term ‘partridge’, however, has traditionally been applied to the somewhat larger and longer-tailed *perdicine* species such as the grey partridge, which derives from the Middle English *pertriche*. Both the vernacular and scientific names of the grey partridge are derived from the Latin word *perdix*. The term ‘francolin’, which serves not only as an English vernacular name but also is the basis for the generic name *Francolinus*, is derived from a diminutive of the Portuguese *frango*, a hen. It also derives directly from the Italian *francolino*, the vernacular name for the black francolin. (Johnsgard, 1988)

What are Francolins?

The francolins are a group of small to large species adapted to varied but primarily tropical un-forested habitats, centered in sub-Saharan Africa but extending north to the Caspian Sea and east to central Asia and southern China. (Johnsgard, 1988) The sexes are alike, rarely dimorphic. Males of most species have singly or doubly spurred tarsi, and females are sometimes also spurred. Francolins are generally divided into nine or so groups.

Francolins, for our purpose, will be referred to as “partridges” in these *Letters*. Our specific discussions will deal with just 5 of the 41 species: Hyderbadi francolin, December Issue; Black francolin, February Issue; Erckel’s francolin, May Issue; and Chinese francolin, August Issue. These are the only

francolins that are kept in the United States in any great numbers to my knowledge. I am sure some of the Zoos and Bird Gardens have some of the other rare species of francolin. Francolins can be managed like others in the partridge family with some exceptions. These exceptions will be noted when the individual species are discussed. If you plan to keep francolins of any species, it would be well for you to get a working knowledge of methods used to raise and keep the species of partridge.

Can I Raise Partridges and Francolins?

If you can hatch and raise poultry, you can indeed be successful in keeping and raising some partridge and some of the francolins. The basic methods are the same and only need to be adapted to fit the individual characteristics and personalities of the individual species. As some of the more rare species are very expensive and difficult to keep, “I would again suggest that you start with some of the more easily handled partridges such as the chukar. Many bird fanciers consider the chukar one of the easiest game birds to raise in captivity, especially when it is raised on wire to minimize disease problems” (Woodard A. E., 1982).

We will only be dealing with the partridge and francolin species kept in captivity in this *Letter* through the next 11 months. On page 14, you can see a chart giving the species that will be discussed. The chart will be expanded during the year as I discover more and more interesting things about these birds. If you have any literature or “input” on any of these species please send me the details. Maybe you have raised some of them and have learned some tricks in raising them. Please let me know in detail your experiences. I will give you credit if I use your information.

I will be discussing “How To Raise” partridge in the October Issue in detail. This article will be geared for the small backyard breeder. Then, the following month, (November Issue) the commercial aspect of raising chukars will be discussed. If done correctly, a breeder can make money raising these birds.

I feel like the important thing is to get the basics down on raising these birds. Partridges in my opinion are one of the easiest gamebird to raise in the backyard or on a large scale commercially. However, there are some things to know about them which will save the breeder lots of grief along the way. These will be discussed in great detail so you will not make the same mistakes that I made trying to learn how to raise these gamebirds.

THE ROCK PARTRIDGE FAMILY

This family of partridges contains some of the most beautiful birds found anywhere in the world. They are very interesting and a joy to raise. Most authorities list seven members of this family with several sub-species under each member. Several species of this family have not yet made it into the pens of United States aviculturists. Because of politics and high costs of importation, it is unlikely that many of them will make it here. This is a shame as new blood needs to be added to the captive stock. Partridges and Francolins are very sensitive to in-breeding and the bloodline very quickly weakens over just a few generations.

Some of the results of inbreeding are:

- Low fertility rate among breeding stock.
- Small and stunted birds.
- No breeding stamina.
- Weak chicks that die soon after hatching.
- A general weakness and susceptibility to various diseases.

Members of the Rock Partridge family

A. Chukar J.E. Gray: chukar partridge

A [chukar] philbyi Lowe 1934: Philby's rock partridge

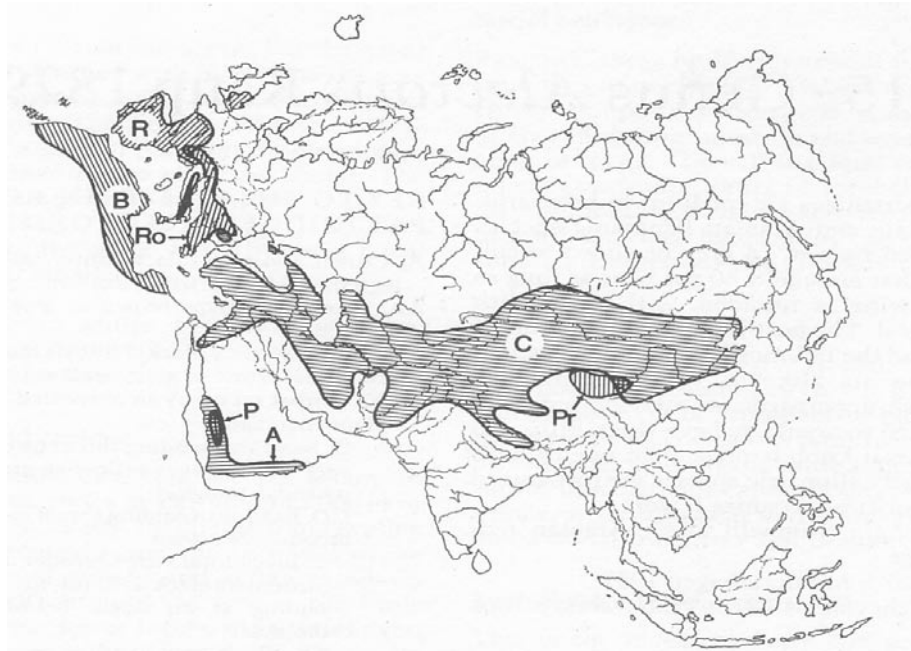
A. magna (Przhevalski) 1876: Przhevalski's rock partridge

A. graeca (Meisner): Rock partridge

A. melanocephala (Ruppell) 1835: Arabian Red-legged

A. rufa: Red-legged partridge

A. barbara Bonnaterre: Barbary partridge



Distribution of the Arabian red-legged [A], Barbary [B], chukar [C], Philby's [P], Przewalski's [Pr], red-legged [R], and rock [Ro] partridges.

The Chukar Partridge

(Alectoris chukar)



Chukar partridges are a medium-sized partridge. Total length ranges from 13.39 to 14.96 inches and weight is 19.4 to 23.8 ounces. Females are slightly smaller than males in length, and in weight, otherwise the sexes are alike. Adult males can often be identified in hand by the button spur or spur bump on the back of the legs. Generally, chukar partridge are grayish brown to olive above, with buff under parts.

There is a very distinct black line through the forehead, eyes, and down the neck forming a gorget between the white throat and gray upper breast. Red legs and bill, with prominent black and chestnut barring on flanks and chestnut tail feathers are very distinctive (Christensen, 1996)

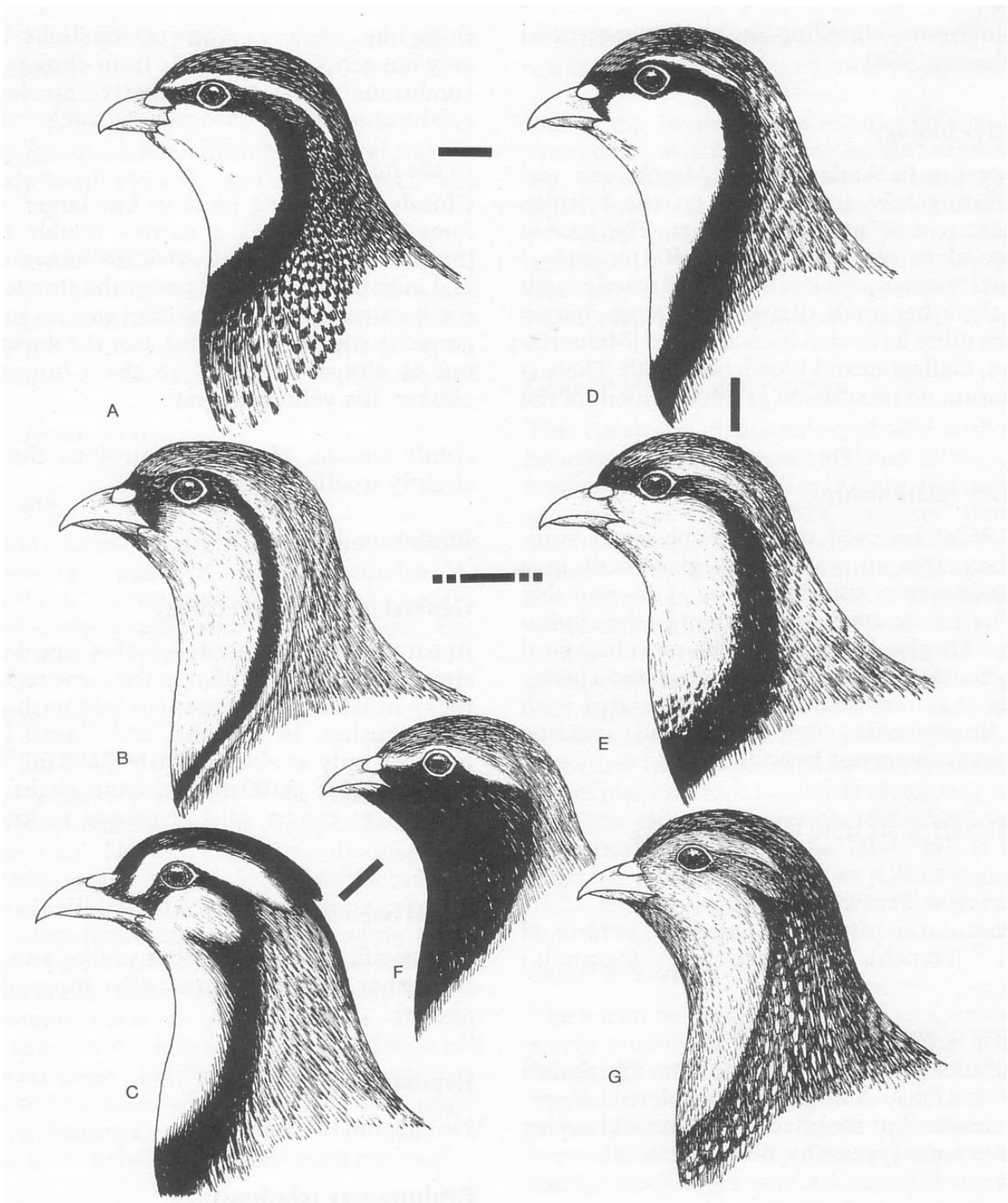
It is interesting to note that in N.W. Pakistan and India, these birds are raised as pets in the house and will follow the people around like dogs. They are extremely pugnacious and will attack strangers. It is reported that chukar fighting is a public sport and heavy wagering is made on the fights (Ali & Ripley, 1980). Recently, I had an odd male ;chukar given to me. He was alone and very pugnacious, so much so that he attacked and injured a Vulturine guineafowl that was in a large pen with him.

Chukar partridge are native to Asia, the Middle East, and southern Europe.² Notice that some of the species have a rather small natural range while others, such as the chukar, has a very large natural range. Przhevalski's red-legged partridge seem to have the smallest range. (This is too bad, these are one of the species that are not in the pens of the average American gamebird breeder.)

Sub-species of *Alectoris chukar*:

<i>A. c. chukar</i>	-East Afghanistan to Nepal.
<i>A. c. cypriotes</i>	-Bulgaria to Syria.
<i>A. c. sinaaica</i>	-North Syrian Desert to Sinai Peninsula.
<i>A. c. kurdistanica</i>	-Caucasus to Iran.
<i>A. c. werae</i>	-East Iraq and South-West Iran.
<i>A. c. koroviakovi</i>	-East Iran to Pakistan.
<i>A. c. subpallida</i>	-Tadzhikistan.
<i>A. c. falki</i>	-North Central Afghanistan, East to West Xinjiang in China.
<i>A. c. dzungarica</i>	-North- West Mongolia, Altai in Russia and East Tibet.
<i>A. c. pallescens</i>	-North-East Afghanistan, East to North-West India and Tibet.
<i>A. c. pallida</i>	-West and South Xinjiang Prov. in China.
<i>A. c. fallax</i>	-Tien Shan Mts. North-West; xinjiang Prov. in China.
<i>A. c. pubescens</i>	-China, from North-East through Neimonggol to West Sichuan and West Qinghai.
<i>A. c. potanini</i>	-West Mongolia. (Robbins, 1998)

² See map on page seven for complete range.



Adult plumage variation among species of Alectoris: [A] red-legged, [B] Przevalski's, rock, [C] Arabian red-legged, [D] rock, [E] chukar, [F] Philby's rock, and [G] Barbary partridges. Lines indicate known (solid) or probable (broken) conditions of limited sympatry between species (Johnsgard, 1988)

Releases in North America

The first introduction to North America occurred in 1893 when five pairs were shipped to Illinois from what is now Pakistan (Christensen 1996). Between 1931 and 1970, approximately 795,000 chukar partridge were released in 41 states in the United States and 10,600 in six Canadian provinces (Christensen 1996). Over time, it has been discovered that the preferred habitats of chukar partridge are found in the Great Basin physiographic region of the western United States and north through eastern Oregon, western Idaho, and eastern Washington where steep, rocky, mountainous terrain contains a mixture of brush, grasses, and forbs.



Beautiful, always alert chukar partridge

Although very similar to the “Rock” partridge, the chukar is found at generally lower altitudes, and it seems to be better acclimated to the more arid areas. The birds seem to avoid the wet and heavily wooded areas in favor of the arid rocky slopes with scattered brush and grasses. In some parts of northern North America the persistent snow cover during winter months are apparently a limiting factor. In the more arid regions, chukars prefer to be near water where

they can survive. It seems that grasses are the most important matter in their diet. Seeds are also eaten along with leaves of various brush.

Most foraging is done early in the morning and the later afternoon hours. During the hottest part of the day their time is spent in shady cover, often near the source of water. The birds are quite mobile with studies showing that released birds sometimes move as far as 33 miles in about two years (Harper, Harry, & Bailey, 1958). Some think they can range as far as two or three miles per day seeking food and water.

Primary foods consist of the leaves and seeds of annual grass and perennial grasses, and the seeds of various forbs associated with the sagebrush– grass vegetation type of the Great Basin, or the saltbush– grass type in more southern areas (Christensen 1996).

Nesting Habits

Before building a nest, the male typically performs a ‘nest ritual’ with his mate that involves entering a clump of vegetation and performing nest-scraping movements. This may serve as pair bonding and also attach both birds to the nest area in the event that he takes over incubation later on. The male will display with his head down, neck extended, and one wing extended until the tip touches the ground.

Chukar partridge are monogamous and by mid-March pair bonding begins. Mates are selected using several specific calls. These calls are used by both sexes. As pairs are established the covey begins to disperse. Each pair searches for an appropriate territory. Nesting territories are defended especially near the actual nest site. The boundaries of the territories don't seem to be very well defined. When nesting conditions are extremely poor, coveys may actually reassemble after a few weeks without attempting to nest (Christensen 1996).

Females lay on the average of 15 eggs in the nest. Incubation lasts about 24 days in the wild as well as in captivity. Shortly after hatching, there is a tendency for the young to assemble into large groups along with a few adults. I suppose that this large congregation of birds is for the purpose of ‘safety in numbers’. It is reported that as many as 50 young chicks has been seen with two or three adults. In high production years, coveys of 100 chicks with as many as 10 adults has been seen.

Losses in the Wild

Known predators of adults and chicks include: coyote (*Canis latrans*), bobcat (*Lynx rufus*), Great-horned owl (*Bubo virginianus*), Prairie falcon (*Falco mexicanus*), Sharp-shinned hawk (*Accipiter striatus*), Coopers hawk (*Accipiter cooperii*), Red-tailed hawk (*Buteo jamaicensis*) and Golden eagle (*Aquila chrysaetos*) (Christensen 1996).

Available water seems to be a limiting factor on the populations of these birds. Although they will go several miles each day to get water, they usually bunch up near watering holes or other sources of water. They certainly prosper in the more arid area provided adequate food and cover are present.

Habitat Requirements

- Chukars inhabit dense to open portions of shrub land associated with perennial and annual grasses and forbs.
- Optimum range is 50% sagebrush-cheat grass-bunchgrasses; 45% talus slope, rocky outcrops, cliffs, and bluffs; 5% brushy creek bottoms and swales; and steep slopes .
- Big sagebrush and cheat grass predominate throughout the chukar's range.
- Chukars nest under low-growing scabland sagebrush, 90-120 m (300-400 ft) above creek bottoms in heavy sagebrush areas mixed with bunch and brome grasses.
- Chukars roost and loaf on the ground beneath sagebrush or under rock outcrops, in Douglas hackberry and in smooth sumac communities.
- Chukars dust alongside trails and roads or near water sites.
- Chukars feed mostly on cheat grass as well as grains, seeds, and green shoots when available

Longevity of Chukar Partridge

Allen Woodard placed two groups of birds which were used in the test for longevity of chukars. The first group was hatched in May, 1974 and consisted of 70 females and 56 males. The second group was hatched in March, 1975 and consisted of 71 females and 55 males.

Chukars in group 1 were kept under a lighting program of 16 hours of light and 8 hours of darkness. Birds in group 2 were kept under a lighting program of 8 hours of light and 16 hours of darkness.

Here is a summary of his findings:

- At one year of age the mortality rate for males was 9.8% and for females 12.9%.
 - Hens kept under a lighting program of 8 hours and 16 hours darkness layed more eggs during the second and third year of age. Mortality during the second and third year increased to 67.2%.
 - Hens kept under a lighting program of 16 hours light and 8 hours darkness layed more of their eggs during the third and fourth year. Mortality increased to 78.6% during the third and fourth year.
 - 10% of all hens survived for 6 years.
 - Twenty-five percent of the males were alive at 7 years compared to 7 percent of the hens.
 - Of the 141 females and 111 males started in the test, 5 birds were alive after 10 1/2 years. Four of the 5 birds remaining alive were males.
 - The highest mortality rate occurred during the highest period of lay.
- (Woodard L. E., 1987)

Now that we know some of the things about these birds in their natural habitat, we are able to appreciate them more. This knowledge will give us more pleasure as we develop our method of propagating them. Long live the chukar!



A Look Into The Future

Below you can see some of the topics (articles) and the month that they will be posted. There will be other articles added as we go through the year, so check out this chart when it appears in the Partridge Letter for more articles.

September, 2008	October, 2008	November, 2008
Introduction Rock Partridge Family Chukar Partridge	Philby's Partridge Incubating Partridge Eggs How to Raise Partridge – Part I	Partridge Nutrition Himalayan Snow Cock Red-legged Partridge How to Raise Partridge – Part II
December, 2008	January, 2009	February, 2009
Partridge Pens Barbary Partridge Hyderbadi Francolin	Arabian Red-legged Partridge Brooding Partridge Chicks Getting Partridge Eggs	Rock Partridge Black Francolin Growing out Procedures
March, 2009	April, 2009	May, 2009
Bamboo Partridge Common Hill Partridge Przhevalski's Partridge	Crested Wood-Partridge Javan Hill Partridge Partridge Breeding Stock	Erckel's Francolin Madagascar Partridge Daurian Partridge
June, 2009	July, 2009	August, 2009
Ferruginous Wood Partridge See See Partridge Sand Partridge	Grey (Hungarian) Partridge Keeping Partridges Healthy Getting Better Hatches	Red Spurfowl Chinese Francolin Marketing Partridges



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Next Month: How To Raise Chukars
 Philby's Partridge
 Incubating Partridge Eggs



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