# Three Everyday Pigeons in Aviculture

by Matthew M. Vriends, Ph.D. Loveland, Ohio

The three genera, *Columba, Turturoena*, and *Nesoenas*, the members of which are all adept fliers, are usually placed together because they have many characteristics in common. Members of these genera are all of similar size to the Rock Dove, *Columba livia*, or the Wood Pigeon, *C. palumbus*. The main colors are gray (typically dove-gray) and brown. The neck usually shows a characteristic sheen and pattern that plays an important role in courtship.

Most of the species inhabit wooded areas and, with the exception of the Rock Dove, are thus not often seen in rocky or coastal cliff areas, although on the Orkney Islands they have to nest on the ground as there is nowhere else to do so. Foraging for food takes place mainly on the ground; though some species also forage among the foliage of trees and shrubs.

Members of the genus Columba are to be found in most suitable areas of the world but in this respect it is important to note that biochemical studies have ascertained that the antigens (the substances in the blood which help form antibodies to fight invasions of disease causing organisms) in the blood of doves from the New World are totally different to those of the doves of the Old World. In my view, the relationship of these two groups is thus questionable, in spite of the general outward similarities of the species. Behavioral studies by the ornithologist D. Goodwin have shown that doves of the New World also have characteristics in common with the American ground doves (Columbina, Claravis, Metriopilia, Scardafella, and Uropelia); a fact with which I agree.

#### Rock Dove or Rock Pigeon Columba livia

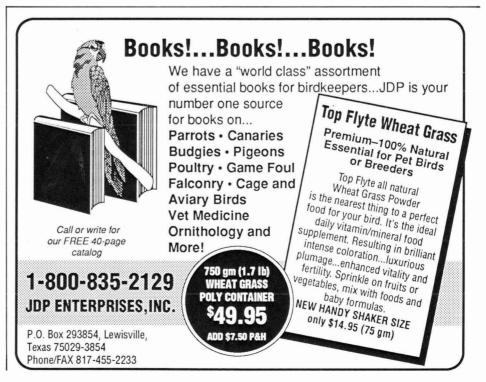
(Five to 10 Subspecies) (Other names: Domestic Pigeon, Blue Rock, and Wild Pigeon)

Characteristics: There cannot be many people who would not recognize this most typical of all pigeons. The size (13.75 in - 35 cm), and often the colors are similar to the feral pigeons we see in our parks, gardens and on our roads and in the public squares of London, Amsterdam, New York, Rome, Cincinnati and other great cities. We all know how tame and trusting these pigeons can be; the city dwelling birds will come boldly to peck up scraps from around your feet and, if you feed them, will land on your head or shoulders in order to take food directly from your hand! They nest on window sills and other ledges on buildings, bridges and viaducts. The wild and feral forms will breed together but the Fi hybrids are sterile.

The wild form is more compact than the feral type and, looking at it from above, is broader across the shoulders, making the body almost heartshaped; the tail is wider and often shorter. The bill is narrower; the same

applies to the cere around the bill. The cock is mainly blue-gray in color, but darker on the head and body than on the wings; there are two conspicuous black bands on the wings and the lower back, and underwings are white. There is a black stripe at the end of the tail and the outer tail feathers are partially edged in white. There is a green and purple sheen to the neck and upper breast feathers. The iris may be orange, red-orange, or gold-orange. The orbital ring is bluishgray, similar in color to the adjacent feathers. The beak is blackish, the cere white and the legs and feet red to purplish red. The hen is difficult to distinguish from the cock but her gray color may be duller and the sheen on the neck and breast not so outstanding. Juveniles are also duller in color but young cocks soon show the sheen in the neck.

There are several geographical variations and the above description applies to the nominate form *Columba livia livia*. These occur on the Faroe Islands, the Shetland Islands and the Hebrides, Scotland, Ireland and the Iberian Peninsula, northwest Africa, and the northern coastal strip of the Mediterranean. The subspecies of Asia Minor to northern India are very similar to the nominate form and, in my opinion, need not be separated from them. Those occurring in Arabia and in north Africa to the southern edge of the Sahara (excepting Egypt)



are all smaller in build and there is no white on the rump. In the middle east and northern India, both types (white and gray rump) occur and seem to breed freely together. This has naturally caused some taxonomical confusion but the following subspecies have been described: C.l. intermedia, C.l. schimperi, C.l. daklae, and C.l. gymnocyclus. The intermedia occurs in India and Sri Lanka and is darker in color; schimperi is smaller and paler in color and occurs in the Nile Delta; even paler in tone is *daklae* which lives west of the Nile at the Dakla and Khargo oases. The darkest form is gymnocyclus, which is native to west Africa; this race has a white rump and also a conspicuous red orbital ring.

Natural Range and Behavior: I have summarized the range of the rock dove above, but a more detailed range is as follows: Faroe and Shetland Islands, Orkney Islands, Hebrides, Ireland, Scotland; all countries around the Mediterranean Sea; eastern Europe, western Asia, Arabia, India, Sri Lanka, Transcaspia, Turkestan, Africa north of the equator (after Goodwin). It is quite possible that this species occurs in parts of Mongolia and northern China, but these birds could well be feral specimens of the type which occur in our towns and cities.

This species lives in sparsely vegetated, rocky areas of the coast and inland, where it must forage for food on the ground. They breed usually in colonies, in caves and crevices in cliff faces, but also, as I observed in India, on the ledges of buildings.

The head nodding behavior of these doves plays an important part in the general courtship ceremony; the display flight also frequently occurs. The cock goes after the hen, with the wings clapping and making his cooing call. The breast, back and neck feathers are fluffed out at the same time. On the ground the wings may also be clapped together over the back, the bird crouching and lowering his head, the feathers fluffed out and the tail fanned out. He runs in little circles around the hen intensively nodding his head. These dances are preferably carried out with hens that the cock knows, but sometimes in front of "strangers". Occasionally (especially in domestic or feral forms) the hen will perform a similar dance to the cock, but this can cause all manner of discord in the group.

Should it be necessary for the cock to become aggressive (for example when rivals arrive in his territory) he may carry out a similar dance, but with little or no head nodding or tail spreading; instead, the head is carried close to the ground. During this behavior he calls (coos) loudly and, in time, the dance can develop into a courtship ceremony as described above. Frequently a fight can develop and the intruder is normally driven off.

The dance may also be carried out by the cock when he visits an old nesting spot, even when there is nobody "at home", also when he comes to inspect any nest with eggs or young. But these cases are the exception rather than the rule.

A third kind of display is the defensive behavior in which the head is carried low and loud calls are uttered (thus: "ou-rou-cou-cou" the "ou" as in "you"). The dove usually looks at its rival straight in the face, but may also present the side of his body. This can be regarded as a sort of preparation for an attack and can happen even outside the breeding season. Defensive display is rarely seen among hens, and then only when they are incubating. They leave the nest and break into the defensive ritual, but seldom making complete circles as performed by the cocks.

Intensive billing of couples often occurs before actual pairing. After copulation has taken place both birds frequently run away from each other with head held high and with outspread rump feathers and drooping wing and tail feathers. Next, the cock performs his special wing clapping flight, the hen quickly following him. Occasionally, the expected postcopulative behavior is not performed and other interesting behavior may be seen. The hen may make pseudocopulatory approaches to the cock, while the cock may make a number of interesting (thank you?) movements.

The nest is a very simple structure constructed from a few twigs, but frequently placed deep in a rock crevice. The birds seem to prefer places that are as dark as possible. In most cases several nests are close together in small colonies. In Asia, nests are also constructed in tree hollows. There is no particular breeding season, and nests, eggs, and young can be found almost all year round. In Europe the breeding season usually starts in the months of April or May, and there are usually two to three broods per annum. The hen lays two white eggs  $(39.3 \times 29.1 \text{ mm})$ ; the incubation time is 17 to 18 days and the young leave the nest at about four weeks of age.

The voice of the rock dove is not, or as good as not, distinguishable from that of the tame or feral forms: "ourou-cou". This call is uttered at the nest, and during the courtship dance it is uttered quickly many times in succession. Birds in danger frequently emit the sound "ea" as in sea.

The rock dove is mainly a seedeater (grass and grain), but also many other items are taken such as small insects and slugs, and all sorts of berries. The bird struts around on the ground, always on the lookout for something to eat. In wooded areas, the birds will often sleep on a branch but do not seek food among foliage; fruits and berries are pecked off the ground. The birds forage in pairs or in small groups, usually keeping close together, also in flight, so that birds of prey have difficulty in selecting a victim.

#### The Feral Rock Dove

Feral rock doves or pigeons have arisen as a result of domestic pigeons becoming lost, from escapes, or from deliberate releases. The domestic pigeon varieties themselves originated from wild rock doves, and feral pigeons are really a reverse of domestication. Some of the ornamental doves (such as fantails and tumblers) would either be too helpless to survive for long in the wild, or their genes would soon be diluted by the sheer numbers of feral pigeons and in one or two generations they all revert back to the typical form. This form is very similar to the wild rock dove, but they are slimmer in build, with a longer tail and a wider bill. Of course there can be a variety of colors that have arisen from domestication including: blue, blue-checkered, velvet brown, speckled, grayish, black or nearly black (scarce) and pied. All of these forms are cosmopolitan in range and in Finland they even reach the Arctic Circle.

Feral pigeons live in and around all sorts of buildings, including church towers, bridges, and railway stations; they occur in gardens, parks and zoos, on farms, but especially in our city squares and streets where they depend on us humans for a good living. Without our help they would not survive for long unless they flew out of the town into the country in search of seeds, etc. This would especially apply if the parks were too small or too few and far between to provide adequate natural food for all these pigeons.

As these birds (like all birds) require calcium (especially in the breeding season), they have been accused of damage to buildings by pecking out the cement from between bricks. That they cause much damage is a joke, as a pigeon's beak is far too weak to damage good, hard cement. What is pecked out is cement that has deteriorated over the years. Feral pigeons are still largely dependent on the kindness of humans, however, and it is interesting to observe that certain pigeons get to know the more generous givers and wait every day patiently to see what tid-bits will eventuate. Sometimes rival pigeons will be hounded out of area by the pecking and wing beating regulars.

The feral pigeons' toilet is per-

formed usually in the morning and they often sit in groups on a sunny, wind-sheltered ledge somewhere on a high building, on the beam of a bridge, or on the ridge of a church roof. On really cold days, the birds will sit close to the walls so that the sparse sunshine can be enjoyed from both directions; from the sun itself and that warmth which is absorbed by the stonework.

As long as food is available, the birds will breed, but the rule is that breeding must occur before the annual molt — usually end of August, beginning September. But it is not unusual for some of them to breed again *after* the molt, in October or November, though most will wait until early in the following spring.

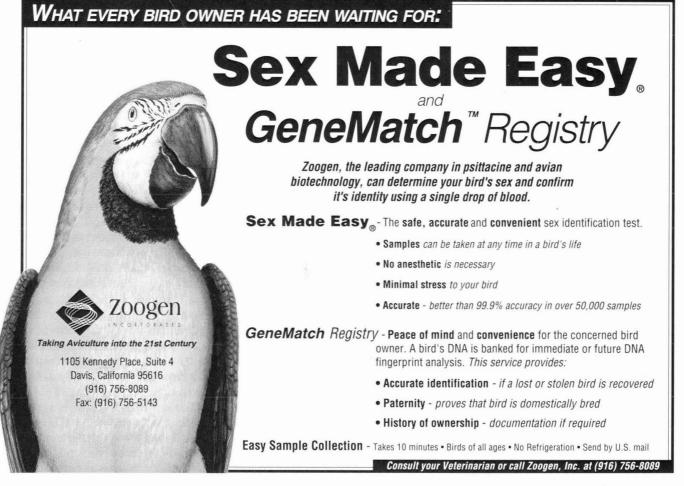
**Care and Breeding:** Though seldom kept in Europe, this species is regularly offered for sale in the USA. Bird gardens and animal parks especially like to exhibit a colony of "real" rock doves; they are also studied extensively by ornithologists, genetecists and similar. Do not forget that the rock dove is the ancestor of all our homing pigeons, rollers, tumblers, highfliers and so on — all of these varieties have been developed through selective breeding and we must give tribute to the rock dove for making these pleasures possible!

The active rock dove requires a large aviary, *witb* pigeon coop. Shelters should be well lit, thus with large windows, preferably directed towards the south. The shelter must be dry and draft proof, and kept spotlessly clean as rock doves are more susceptibe to diseases such as trichomoniasis, salmonellosis and chills, than domestic pigeons. It goes without saying that fresh, clean drinking water should always be available!

Like the homing pigeon, the rock dove remains attached to its home, so you can let it fly freely without too many worries. By doing this you will also gain the pleasure of enjoying the flight patterns of your birds.

It is best to foster the eggs of rock doves to a good pair of fancy pigeons that are of similar size to the real parents. The foster parents must, of course, also rear the youngsters.

If you have an aviary with a pigeon cote attached, the rock doves will



soon behave just like the fancy pigeons. It is, therefore, necessary to have the cote supplied with a landing platform, nest boxes, perches of the right diameter and so on. More information on the care of fancy pigeons, much of which can also be applied to rock doves, can be found in my book *Pigeons, A Pet Owner's Manual* (Barron's).

The diet for rock doves should include wheat, milo, small maize (sweet corn), grains, dari, peas, vetch, hemp, canary grass seed, linseed, rolled oats, niger, greenfood (lettuce, chickweed), fruit (cherries) and adequate calcium (supplied through shell grit or similar). Like our domestic pigeons, rock doves are fairly dependant on legumes (peas, vetch, and lentils) and grains and will lose condition if not in receipt of a daily supply. The smaller seeds mentioned above can be given as a supplement or a treat.

### Stock Dove or Stock Pigeon (Columba oenas)

(two subspecies)

**Characteristics:** A small dove, smaller than a feral rock pigeon but with a more robust appearance. The wide wings are somewhat shorter than those of some similar species, but they are longer than their own tails. In flight, two black stripes can be clearly seen on the upper side of the wings (such as when the birds are gliding to land), situated fairly close to the body. First impressions of coloring are that they are a somewhat darker and more intensive gray-blue than the Wood Pigeon and, to be more precise, there is no white in the feathering and the whole body is dark gray-blue, with a reddish wash on the throat and breast. The primary wing feathers are dark brown, the tail is bluish-gray with a wide black edge at the tip. In contrast to the Rock Dove, the Stock Dove has a gray, and not a white rump. Two short, black bands and the trace of a third black band can be seen near the top of the folded wings. The upper part of the breast is pinkish-purple with a beautiful, full gloss, but not quite so large as in the Wood Pigeon. There is a glossy rainbow patch on either side of the neck; these patches sometimes meet at the back of the neck. The iris is strikingly dark and sometimes could be said to be black, depending on the aspect from which one is looking at it. The eyes are a

good indication of the bird's health and if they are a light, yellow-brown in color, you can be sure that the bird is sick.

The orbital ring, like the feathers adjacent to it, is bluish-gray in color. The beak is usually reddish with a yellow tip, but sometimes it may be dull white. The base of the bill is pink but the cere is flesh-colored.

The strong legs and feet are coral red. Although the sexes are difficult to determine, differences can be seen if you have adequate comparative material. I think the gray and blue of the hen is somewhat duller in color; the same goes for the feet and the beak. Lenth: 12.6 in (32cm); weight: 250-300 grams.

Natural Range and Habits: The Stock Dove, according to Goodwin (and I have no reason to dispute this) has an enormous range of habitat; a fact that also applies to other dove species. The Stock Dove occurs in western Europe from Finland in the north to Portugal in the south; also in northwest Africa and eastward to Asia Minor, across central Asia to the wooded steppes of Siberia; southern Scandinavia, Persia and parts of Turkey. Some northern birds like to migrate to warmer climes in the winter; sometimes travelling as far south as Sinai and the Nile Delta.

In view of the preferred habitat of this species it is not difficult to assume that it was originally a forest margin dweller, from where it could take refuge in the woods if danger threatened. Today, where woodland is no longer so common, the Stock Dove likes to inhabit mainly open and cultivated land, often in parks, large gardens and on the outskirts of country villages. In England they occur on cliffs and sometimes even in the larger towns. In the Netherlands and Belgium, for example, they may be found among the dunes near old buildings, and in farmland and mixed woodland.

The nesting site is very variable; I have found nests in tree hollows, in holes in walls, in chimneys, on the ground under shrubs, and once a free nest in thick foliage. In the literature all manner of nesting sites are recorded, including rabbit burrows, woodpecker holes and artificial nest boxes. The altitude of the nest does not seem to matter as nests have been found in trees 25 meters (approx. 80 ft) up. Several pairs may often nest

close to each other, in spite of initial squabbling as the nest sites are being selected. The nest itself is a simple platform built by both sexes from thin twigs and grasses. The hen lays two shiny white or light cream colored eggs (40.1 x 28.7 mm) which have very thin, porous shells. Depending on the weather conditions, two or three broods may be reared each season from April to July, though this is not a hard and fast rule — earlier and later broods are often recorded. New broods are usually started in a new nest site as the youngsters can almost fill a nest hollow up with their droppings! Both sexes share in incubation and the young hatch in fifteen and a half to sixteen and a half days. After a further four weeks, the juveniles are ready to leave the nest.

Once fully feathered, the juveniles are very similar in appearance to the adults, but are generally somewhat duller in color, while the breast is rusty-yellow brown and the beak and the feet are dark, gray-black. The green is also absent from the sides of the neck. The young cocks' feet color into pink after three weeks.

Observed in the field, the Stock Dove can be distinguished from the Wood Pigeon by its darker, uniform gray-blue color. The Stock Dove flies faster with more wing beats than the Wood Pigeon, but not quite as fast as the Rock Dove and its feral cousins. I also have the impression that the Stock Dove flies with its beak held lower than the other two species mentioned. But this can only be determined after one has had many opportunities of studying all three species in the field.

The voice is easy to distinguish from that of the other two species. The call sounds like "coo-ou, wou" (ou as in you) with the accent on the first note. The call may be repeated monotonously. The same call is used as a nest call. During the courtship dance the call is repeated very softly and, if you are close by, you may also hear a distinct click. This could be vocal, but is more likely to be the mandibles of the beak clicking together, but bear in mind that doves normally call with the beak closed!

The courtship dance is very similar to that of the Wood Pigeon, with much head nodding and the tail spread out on the ground. The display flight is also similar to that of the Wood Pigeon, though perhaps not quite so pronounced. Both birds glide together horizontally with the occasional wingbeat. Copulation is also similar to that of the Wood Pigeon, but the cock continues to nod and bow while the hen remains still. The cock may continue to bow after pairing is completed.

Care and Breeding: These doves make ideal pets. They are very hardy, but in outdoor aviaries they should still have access to a draft and damp proof shelter. They are normally quite peaceful, are monogamous, and can be regarded as almost affectionate towards their keeper; moreover they often live for 15 years or even more.

The Stock Dove is being bred in increasing numbers in many parts of the world. Three to four broods per season are not unusual. An ideal nest box size is 14 x 14 x 18 in (approx. 35 x 35 x 45 cm), with an entrance hole 4.3 in (11 cm) in diameter. The box should be affixed — preferably in the night shelter or roofed part of the aviary — so that the birds have adequate space to sit on top of it and survey the surroundings. Once the young have fledged, a new, clean nest box must be made available for the next brood.

The Stock Dove finds almost all of its food by foraging on the ground. It is an active bird, running hither and thither, tasting and eating. In addition to a great variety of wild seeds it also takes cultivated seeds; a fact that makes it unpopular with farmers. It also takes slugs, small insects and similar as well as germinated seeds, pieces of living leaves, buds, shoots and roots. The last four items are not eaten as frequently as the Wood Pigeon does (bearing in mind that these are the Wood Pigeon's staple diet).

It is questionable if the Stock Dove eats berries, acorns and/or beechnuts. I have never observed them doing so and agree with the dove expert Derek Goodwin in this respect.

Both sexes are known for their courageous (at least for doves) and aggressive nest defending, and larger birds as well as other doves are driven fiercely off with much wing clapping and pecking.

## Wood Pigeon (Columba palumbus)

(Five subspecies) (Other names: Ringdove, Cusshat, Cushadoo, Quest, Ring Pigeon, and Stock Dove).

**Characteristics:** This species is somewhat larger than the feral Rock Pigeon. A common pigeon, it is not the pest that it is frequently described to be and is, indeed, a great aviary bird. The Wood Pigeon has a pleasant voice and attractive plumage on its almost round body. The wings are not as long as those of the Rock Pigeon; the same applies to the legs. The tail, however, is longer than that of the

Rock Pigeon. The broad, white wing bands are conspicuous when the bird is resting as much as when it is flying. The sides of the neck show a purple and green sheen, and the white neck marking is one of the most characteristic features of this species. The rump and the upper tail feathers are dovegray and there is a broad black band at the end of the tail. The iris may be greenish-white to pale gold, but mostly pale lemon yellow. The legs and feet are dark reddish-purple. The



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naked orbital ring is gray. The beak is yellowish gold with a pink-purple base. The cere is whitish.

Juveniles are similar to the adults, but do not have the white neck markings and are altogether duller in tint. Adult cocks and hens are almost identical in color, but the cocks tend to have more white on the neck and more pink on the breast.

The subspecies *C.p. iranica*, occurs in Persia. This bird has an almost white, or pale yellow beak; the north Indian race, *C.p. casiotis*, has creamy brownish-yellow neck markings. The North African form has paler neck markings, while those from Madeira and the Azores, *C.p. madarensis* and *C.p. azorica*, have dull and small neck markings.

The Wood Pigeon is easy to identify in flight by the white wing bands. While resting, the neck markings and the long tail are good diagnostic features. Another characteristic of this species is its habit of lightly spreading and moving its tail up and down before taking to the wing. Length: 16 1/8 in (41 cm): weight: 500 grams.

Natural Range and Behavior: In Europe it occurs in the north to about 66°N., and through to Iran and northern India; also eastern and central Azores, the mountain forests of Madeira (where, according to Goodwin, the birds are now extinct) and finally, the mountain woodlands of northwest Africa. Although the bird was originally a woodland species (as its name suggests) it has, over the years, changed its habits in many parts of its range, often becoming an inhabitant of cultivated areas (farmland, parkland, larger gardens, etc.), sometimes even in the larger cities. In areas where suitable trees are scarce, on the Orkney Islands for example, the birds will often nest on the ground.

Wood Pigeons that occur in northern Europe, often overwinter in central Europe, more often in the western parts. In the Netherlands and Belgium, for example, they travel through in great numbers during the months of October/November, and February to May. In the Netherlands, as well as its southern neighboring country Belgium, the Wood Pigeon is a very abundant breeding bird (even in the towns and villages).

The Wood Pigeon builds (it does not use old nests of crows or other birds) a shallow nest with twigs, often so flimsy that from below you can see the eggs through the twigs. Although the nests are usually built in trees or shrubs, the town-dwelling pigeons will often nest on the ledges of buildings. The nests are very occasionally found in tree or rock hollows or on the ground.

The Wood Pigeon can breed as early as March, and continue through to October, but the main season is usually from June to middle September. The hen lays two to three thinshelled, roughly-textured, shiny, white eggs (40.1 x 28.7 mm). The incubation time is 15-1/2 to 17-1/2 days. Both sexes incubate. The young fledge after 20 to 25 days. Incubation begins after the second egg is laid, thus usually after the whole clutch is laid. Nests found with more than the usual numbers of eggs are usually those shared by two or more hens.

Outside the breeding season Wood Pigeons are fairly sociable and will often forage, even roost, together in groups. But pairs remain faithful to each other and split off into territories for breeding. At such times they will fiercely defend their territories against intruders. Occasionally, males will roost together when their hens are incubating overnight. The courtship dance is very interesting. The cock usually begins the ceremony by bowing the head several times, while his neck feathers are fluffed out showing off the markings and accentuating his golden beak and his pale colored eyes. During the display, the pupils contract to mere dots. The tail is raised and fanned out, peacock-like, then is slowly brought down and the phase finished with another head bow. The tail spreading is not performed if the prospective partner is not, or is hardly interested or runs away. In flight, the cock claps his wings together loudly, before gliding in a shallow downward bow, with almost horizontally outstretched wings (markedly different to the Stock and Rock Pigeons with their wings only partly stretched out). After two or three of these displays, the cock lands again on a branch or similar. Often a little "billing" takes place after such a display, the cock spreading his neck feathers again just before copulation begins.

The musical voice, sometimes loud, but usually a soft "coo, coo, coo; roocoo", is used in the display flight, also as the bird takes off with much wing clapping. It is much softer when the bird is resting on a branch.

Wood Pigeons have a very varied diet that includes leaf buds, young leaves, grass and other plant seeds, various cereals and nuts, assorted berries and, for a change, small invertebrates such as green caterpillars, slugs, and even the occasional earthworm. In agricultural areas, a lot of clover is eaten in the winter; we are also aware that the town birds will gladly come close to be fed with bread! Only the pigeons that are not familiar with bread may refuse to eat it, even when they are hungry (when in doubt, leave it out!), but if these doubting birds see their companions eating it, they just might give it a go!

It is interesting to note that Wood Pigeons do not forage only on the ground but also in trees and shrubs, sometimes climbing among extremely thin twigs; quite extraordinary when you consider the size of their plump bodies. They climb very carefully among such twigs, but always seem to be able to maintain their balance. These birds can even hang upside down if necessary and will do so quite often in order to reach a tasty morsel, especially when the berries are ripe.

Care and Breeding: Wild examples of this species are generally difficult to breed, even in a large aviary. Handreared specimens or specimens reared by foster parents, however, usually are more accommodating. In my experience, wild examples never lose their shyness, remain exceedingly nervous and quickly panic at the slightest disturbance. They can thus injure themselves very easily. It is best always to use aviary bred or reared birds if you can. Domesticated pigeons, or Stock Pigeons of a similar size to Wood Pigeons are the best foster parents. The young should be given water-soaked bread, soft fruits, mealworms and other insects as well as the normal seed mixtures. Experience has shown that young pigeons reared on seeds alone are likely to die with intestinal problems within five days.

Hybrids of Wood Pigeons with Stock Pigeons are infertile; not surprising in that Wood Pigeons are anatomically quite different. They are ornithologically classified as tree pigeons and can, for example, grip narrow twigs with their toes, something that Stock Doves cannot do.