

4-H Pigeon and Dove Project

This manual introduces 4-H members and their leaders to the possibilities of raising pigeons and/or doves as a 4-H project.

Pigeons and doves can adapt to nearly all conditions. You may raise them in rural, suburban, or urban areas; they seldom are restricted by zoning. They are easy to raise, basically inexpensive to maintain, and require very little space. They are fairly quiet and have few offensive odors.

Project Guidelines

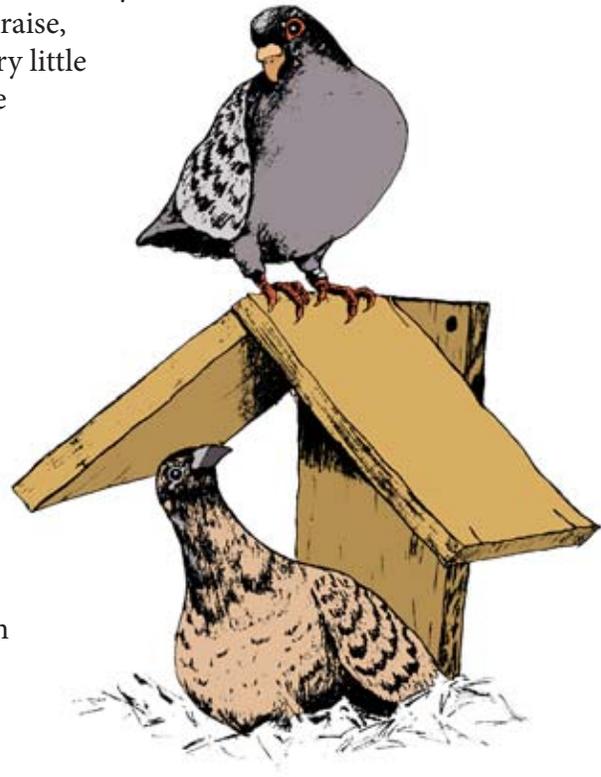
Breed—You may use any breed or variety (pure or crossed) of pigeon or dove.

Management—House birds in clean, well-equipped quarters. Feed and water them daily and protect them from cats, dogs, and other natural enemies.

Records—4-H record forms are provided for keeping track of all purchases and sales for the flock. You may keep individual records on eggs laid, hatch dates, and squabs reared.

Project opportunities—

- **Presentations:** Develop and participate in pigeon or dove project presentations. Examples: Building a loft, dressing out a squab, training a racing pigeon, showmanship, washing, foot care, etc.
- **Advancement program:** An advancement program is available for all 4-H members.
- **Exhibition:** Exhibiting birds is an opportunity to learn more about breeds of pigeons and doves.
- **Judging and showmanship contests:** Members can participate in different contests at local, regional, state, and national levels.
- **Tours:** Tours of lofts, feed stores, and shows can be exciting and educational.
- **Library:** Develop a 4-H pigeon and dove library for members to use.
- **Community Service:** Different kinds of activities are encouraged and can help the individual and/or club become more involved as citizens.



Breeds and Varieties

Pigeons

There are almost 200 different breeds and varieties of domestic pigeons. The body shape and size determines the breed, while the feather color or pattern determines the variety. Pigeons may be grouped into three classes:

Utility breeds—Used primarily for squab production. The largest pigeon breeds include the White Kings, Red Carneau, French Mondain, Giant Homers, and Runts.

Fancy breeds—Usually kept for their beauty of form and/or color. Primarily for exhibition, these birds include such breeds as Fantails, Jacobins, Owls, Pouter Tumblers, and Modenas.

Flying or homing breeds—Used for racing, endurance flying, and homing. Major breeds are Racing Homers and Rollers.

Doves

Doves have been pets since early history. More recently, doves have become widely used for breeding, showing, and exhibition as their popularity has increased.

Doves are basically smaller than pigeons, but they have many of the same habits. Popular breeds include Australian Crested, Chinese Laceneck, Diamond Green Wing, Mourning, Pied, Ringneck, and White Sacred.

Buying Birds

Before you buy birds, decide whether you want to raise petstock, showstock, or birds for meat. Depending upon your ultimate goal, you might consider the following questions:

1. Are your facilities and budget adequate to support this breed?
2. Do you want mated pairs?
3. How old are the birds?
4. What relation to each other are these birds?
5. What is the show record in this blood line?
6. Are the birds purebred?
7. Does the seller guarantee these birds to produce?
8. Are the birds free from disease?
9. Will the seller replace poor breeders with good ones or refund your purchase price?

Behavior

Pigeons

Pigeons mate as pairs and generally remain constant to each other for life. When a pair has gone through the courting stage, mated, built a nest, and hatched young, they usually remain true to each other as long as they live or until they are forcibly separated. If a pair is broken by death or forcible separation, the birds will mate again with other birds. In the absence of available males, two females may pair up and both may lay infertile eggs in the same nest.

The breeding habits of pigeons are unique. When a male has selected his female mate, he struts around her and coos to her. The female, if attracted by the wooer, becomes friendly and the two “bill” each other as if to exchange kisses.

The two then select a nesting place and build a nest. After several days, the hen takes to the nest and lays an egg. Two days later, she lays a second egg. The hen lays only two eggs per nesting.

Incubation begins as soon as the hen lays the first egg. She occupies the nest from about 4 o'clock in the afternoon until 10 o'clock the next morning. The cock then takes his turn while his mate eats and rests. The incubation continues in this routine, and after about 17 days, the egg that was laid first hatches. The second egg usually hatches about 24 hours later. The newly hatched babies are called **squabs**.

Both parents care for the young. They feed them by regurgitating a thick, creamy mixture called “pigeon milk” into the squabs’ open mouths. This material is produced in glands found in the crops of both male and female pigeons and doves. Approximately a week after the squabs are hatched, the hen is ready to nest again. She selects a new nest and the process previously described begins all over again. The parents are kept very busy taking care of a nest of eggs and a nest of squabs at the same time.

The doubling-up of families points out the need to provide two nest boxes for each pair of pigeons in the loft. Extra nest boxes placed around the loft reduce quarreling between pairs. Since pigeons generally mate for life, it’s important that only mated pairs be kept in the breeding loft if possible. The presence of single birds may cause family problems. Eggs may be broken and squabs killed as a result of fighting.

When the squabs are about 4 weeks old, they are full size, fat, and mature enough to leave the nest and take care of themselves. At this time, they are taken from the nest and sent to market.

Doves

The mating behavior of doves is very similar to that of pigeons. However, their nesting habits and incubation periods differ slightly. Mated pairs generally build a rather flimsy nest of twigs, straw, or similar material. The female lays two cream-colored eggs, which take 10–14 days to hatch, depending on the breed. Squabs grow quickly and, in smaller breeds, may be

ready to leave the nest about 10 days after hatching. Young birds usually sit on the floor of the loft for several days before taking up active flight.

Doves differ from pigeons also in that they do not reproduce well when more than one pair is housed in the same loft. Each mated pair should have its own breeding pen if the breeder hopes for success in rearing young. Pairs often fight over the same nest, and eggs often are broken as a consequence.

Housing and Equipment

Loft

The loft should be clean, dry, free from drafts, and cat- and rodent-proof. The size depends on the number of birds housed in it, but suggested dimensions are 4 x 8 x 7 feet high, with fly-pen attached for pigeons; and for doves, breeding pens 3 x 3 feet with separate fly-pen for young adults and winter housing. Situate the loft so that birds have both sunlight and shade.

Perches

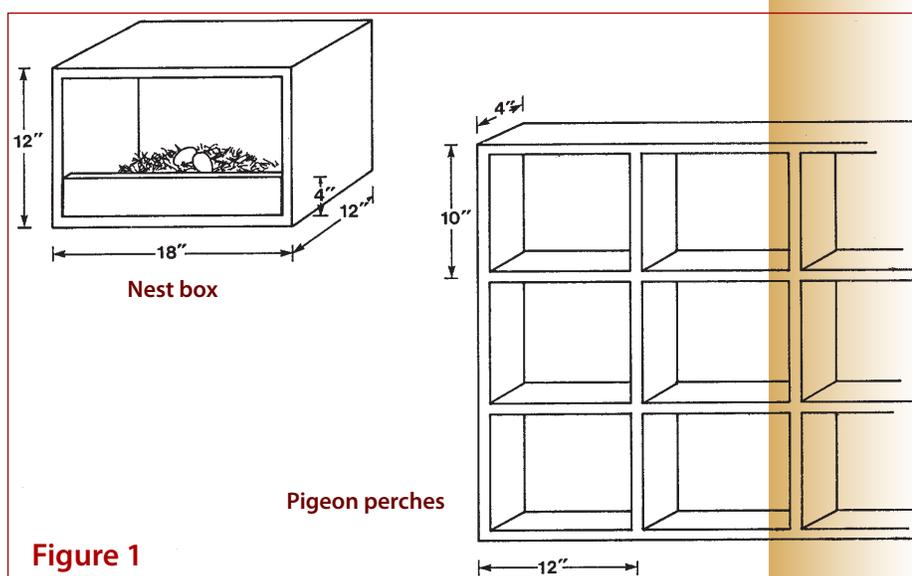
Provide separate perches for each pigeon or dove. These birds are territorial, and quarreling can be reduced if perches are made such that they can be easily guarded. You may construct a pigeon perch of 1- x 4-inch boards, divided into 10- x 12-inch compartments. You may make a dove perch of tree branches or ½-inch doweling.

Nests

Provide each mated pair of pigeons with two separate nest boxes. Construct the box of 1- x 12-inch boards made into 12- x 12- x 18-inch compartments with a closed back and with a 1- x 4- x 18-inch board across the bottom front. This board will keep the nest materials, eggs, and squabs from falling out of the nest.

Dove nest

containers need not be as elaborate. Since doves build flimsy nests, any container that would help hold the nest together and help keep eggs and squabs from falling out will do. Some breeders use clay flower pots (7-inch top diameter), pigeon nest bowls, or small wooden boxes. Place the nest in a somewhat secluded place.



Provide nesting material such as hay, straw, pine needles, wood chips, or twigs.

Waterers and feeders

You may use any type of waterer or feeder, as long as you protect the water or feed from bird droppings. Wash waterers daily with soap and a sanitizing agent.

Bath pans

You may provide a bath pan for pigeons and doves once or twice a week for a period of 2 hours. Pans should be shallow (water depth 2 to 3 inches) and large enough to accommodate several birds. Birds may pile up in smaller pans, and those on the bottom may drown or suffocate. Don't leave the bath pan in the loft for more than several hours or the birds will drink the dirty water and may become ill.

Management

Pigeons and doves are basically seed/grain eaters. Commercial grain mixes and pellets are specially prepared for pigeons. Many dove breeders mix the commercial grain mix (for pigeons) with seeds (sold commercially as wild bird seed).

All pigeons and doves require a balanced diet for best production no matter what type of feed is used. Protein is essential when birds are producing, and peas and soybeans are a good source. Commercially mixed feeds have all the essential nutrients required by the birds, but make sure your birds are eating all the different types of grains when you feed them a grain mix.

If you wish to mix your own feed, follow these suggested formulas:

Pigeons	Doves
Peas 18%	Peas 15%
Yellow corn 40%	Yellow corn (cracked) 40%
Kafir (milo) 15%	Kafir (milo) 15%
Red wheat 27%	Red wheat 20%
	Wild bird seed 10%
Mineral grit (free choice)	Mineral grit (free choice)

Make grit (small pieces of granite) available to birds that don't get out to eat gravel. Grit and gravel help the bird digest food. Many breeders prefer Red Health or Mineral Grit for pigeons and doves because it has extra minerals and salts. Commercial pellets contain minerals, so avoid using mineral grit with this feed.

Most pigeons and doves will perform well if provided adequate peas, corn, kafir, red wheat, and mineral grit in separate feeders, so they can balance their own diets.

Cleaning lofts

Thoroughly clean the loft and nest boxes at least once a week. Flies lay eggs in fresh droppings and, if allowed to hatch, can cause sickness. Cleanliness in the nest boxes is especially important when they are occupied by young. An inch of sand on the loft floor makes cleaning easy. You can sift the sand through a fine hardware cloth and reuse it. By raking the sand daily with a leaf or broom rake, you can discard droppings regularly and the sand will stay fairly clean. By preventing feces buildup, reducing excessive moisture, and maintaining a healthy environment, you reduce the potential for disease.

Mating

Males and females of most breeds of pigeons and doves look somewhat alike, so the beginner should secure mated pairs from the breeder when buying. Pigeons and doves mate for life unless the pairs are broken. Be cautious not to buy mated pairs that may be too old to produce fertile eggs.

Each pair has its own quarters. This area (nest or perch) is forbidden to all others. A smart bird manager does not disturb the birds' "home." Pigeons will nest at any time during the year, but extremely cold weather may cause eggs and squabs to freeze. Many pigeon breeders separate their cocks and hens in October and re-mate them in April rather than let them breed through the winter. Doves usually begin nesting in April, and stop around October in cooler climates. To ensure production throughout the winter months, keep a light on in the pigeon loft.

You can accomplish selective mating by breaking up mated pairs and isolating the desired pairs for 1 to 2 weeks. Within this period, the new pairs usually will be firmly mated and can be put back into the breeding pen.

Record the date the eggs are laid and the number of young that hatch. **Do not disturb or remove newly hatched squabs from the nest.**

Banding

Band young birds with a seamless, numbered, aluminum band so that breeding records are accurate. Put the band on the **right** leg when the squab is 5 to 10 days old (depending on the size and breed of the bird). Slide the band over the foot by pressing the three front toes together, then slide the band over them and the ball of the foot, pushing it up the leg until you can pull the hind toe through the band (Figure 2). Place the band so



the numbers read upside down when the bird is standing (Figure 3).

Band sizes are specific for different sizes of birds (especially pigeons), so be careful to buy the right size band. Be sure to band the squab while its foot is still small enough to slip through it. The bands are permanent and do not expand. Birds that are being raised for show purposes must be banded with a seamless band.

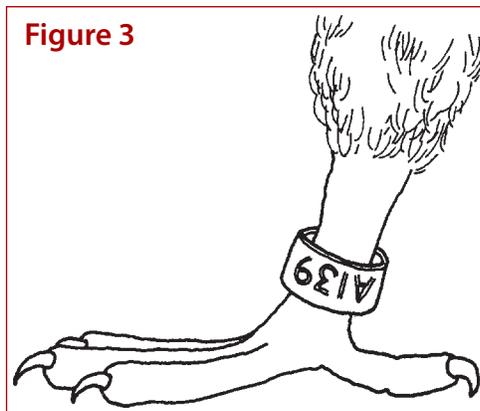


Figure 3

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Keeping Healthy Birds

Diseases and parasites

The following diseases and parasites are among the most common.

Canker

This is a killer of pigeons. It is transmitted by carriers (pigeons) of the organism who are relatively unaffected by its presence in their system. A yellowish-white pustule of crust develops in the throat of the affected bird. As this growth enlarges, it closes off the windpipe opening and suffocates the bird.

Mites

The common red mite of poultry usually is not a problem in the pigeon and dove loft. You can control it with pesticides recommended for poultry.

Pigeon lice

Both feather and body lice appear on pigeons and are quite easy to control. One of the better methods for the person who has only a few pairs of birds is individual dusting with any good poultry louse powder. Examine the birds 7 to 10 days later, and if the first treatment was not 100-percent effective, repeat treatment.

Infections

Cold symptoms may include watery or puffy eyes, or a raspy, rattling breathing sound. Pigeons may contract a wide variety of respiratory viral and bacterial infections. Some infections (Newcastle, pigeon paramyxovirus) require vaccination, whereas others (cholera, coryza, ornithosis) require antibiotics. They cannot be differentiated without a laboratory diagnosis.

Paratyphoid

This is a common infectious disease of pigeons, and is probably the most devastating infectious bacterial disease. Two symptoms are swollen joints and severe diarrhea. Birds generally die if not treated.

Internal parasites of pigeons

There are many kinds of internal parasites that affect pigeons, namely protozoa (which cause canker) and worms (roundworms, flukes, tapeworms, and thorny-headed). The roundworm is by far the most common and most

hazardous. Roundworms usually live in the gastrointestinal tract including the crop, proventriculus, gizzard, and intestines. The worms share two things in common. Their eggs are next to impossible to kill in litter, manure, or on most surfaces, and infection occurs when the eggs are swallowed while the birds are foraging.

The symptoms of infection vary, but the more common symptoms are weak legs, cloudy eyes, diarrhea, general poor movement, dull feathering, or weight loss. The larger the worm load and the younger the bird, the more severe the signs. You can achieve prevention by thoroughly and frequently removing litter and droppings.

Medications given in the drinking water once a month will keep the parasite population to a minimum. Be aware that during very hot weather, pigeons will drink too much of the medicated water and overdose. Do not medicate baby birds or breeders during the mating season. It's best to treat each bird individually on a milligram-per-pound medicated oral dosage. The results are very reliable.

Diarrhea can be caused by coccidiosis, salmonella, or worms. You'll need to have a veterinarian examine the pigeons' droppings for parasite eggs and recommend treatment.

Remember, if you administer medication that is not officially approved for birds, you do so at your own risk. The best insurance against parasite infection is a good, sound sanitation program.

Steps to pigeon and dove health

Preventing is less expensive than curing disease outbreaks. Careful sanitation is unquestionably the first line of defense against disease losses. Preventive practices to help avoid disease loss can be summarized under general categories taken from *Pigeon Diseases, Their Prevention and Control*, Ralston Purina Co.:

Good breeding

- Start with disease-free breeding stock. The adult serves as a reservoir of infection for the squab as well as a carrier to other adults.

Careful sanitation and sound management

- Remove all droppings daily or at least once a week. Daily removal is essential during disease outbreaks.
- Construct housing, runs, and equipment for ease of cleaning and disinfection.
- Keep building, litter, and runs clean and dry at all times.
- Isolate newly purchased birds that are being returned from a show for several weeks, because they can introduce disease into the entire flock.
- Inspect all birds daily, and isolate any sick birds immediately.
- Get a laboratory diagnosis when disease strikes. Until the cause of your problem is identified, definite steps cannot be taken for proper treatment and control.
- Dispose of all dead birds promptly.

Good feeding

- Feed a balanced ration. It has been demonstrated that healthy birds are more resistant to disease, and the optimum level of nutrients will provide better health.

These are the fundamentals that serve as the foundation for a management and sanitation program that reduces disease losses and provides the maximum in profit and enjoyment for every pigeon and dove breeder.

4-H Pigeon and Dove Showmanship

When members exhibit pigeons from their pigeon and dove project in 4-H shows, they sometimes have an opportunity to take part in a 4-H Pigeon Showmanship Contest. In such an activity, the 4-H'er must present his or her pigeon to the judge in such a way as to show off the bird to its best advantage.

Pigeon showmanship is very much like showing bantam chickens in Poultry Showmanship. One main difference is that pigeon handlers **never** let go of the pigeon's legs, whereas poultry handlers may stand their birds free on a show table.

Doves are considered to be rather "flighty" birds and don't like to be handled. The following showmanship techniques can be used for doves, but handlers should be aware that frightened doves often lose feathers and may escape the handler.

Prior to the show

The 4-H'er should handle his or her pigeon quite regularly in the weeks prior to the show so that it is accustomed to being handled and is not afraid when picked up and moved about. The pigeon should be washed prior to the show (early enough to be dry before the contest) and should have its toenails trimmed (if necessary). These things are usually done at home before the bird is brought to show.

At the show

Step 1. Taking pigeon from cage to coop

Moving slowly so as not to frighten the bird, the handler should reach one hand into the cage, place it on the bird's back, and turn the bird so its head is facing the door of the cage. Then the handler should slowly place the other hand under the bird so that its legs are clamped between the first two fingers. The thumb should extend up over the back of the bird to help hold the wings in place. The hand that holds the legs and wings will be referred to as the **grip** hand, and the other hand, the **free** hand.

With both hands on the pigeon, holding legs and wings still, the handler should remove it from the cage head first. (If removed tail first, the pigeon may try to escape and its feathers can be torn or broken.)

Step 2. Carrying pigeon to the show table

Using the same hand positions, the handler should carry the bird from the cage to the show table with the bird tucked in facing the handler's chest area. The bird will feel secure here until moved.

Step 3. Presenting pigeon to the judge

The judge will ask each handler to present his or her pigeon in such a way as to show certain body parts or regions. Therefore, it's essential for the handler to know the terms for pigeon anatomy (including types of feathers) and be able to indicate or display them. See the chart on page 13.

Figure 4—When

approaching the showtable, the handler's first task is to present the pigeon in profile. This can be done by bringing the pigeon out in front of the handler with the grip hand (a),

and removing the free hand (b) from the back of the pigeon. The free hand (b) can be used to keep the pigeon's attention and to keep it alert by slight, catchy movements. Movements should not distract the judge's attention from the bird, however.

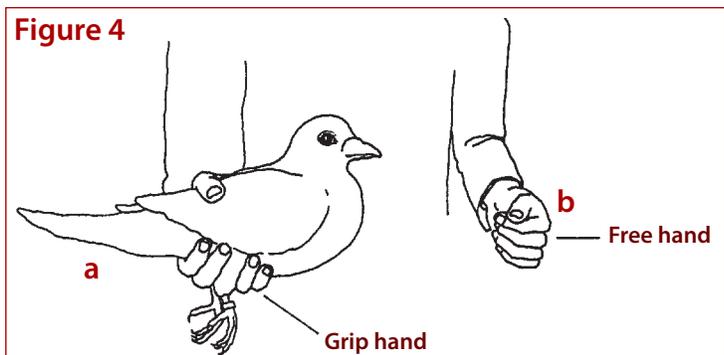


Figure 5—If the judge asks to see any of the wing feathers, the handler should turn the pigeon's head toward him or herself with the grip hand (c) and spread one wing with the free hand (d).

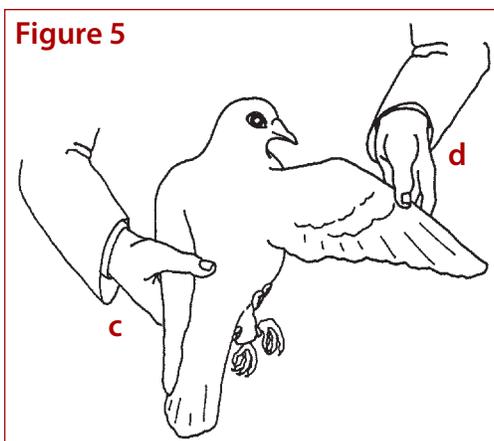
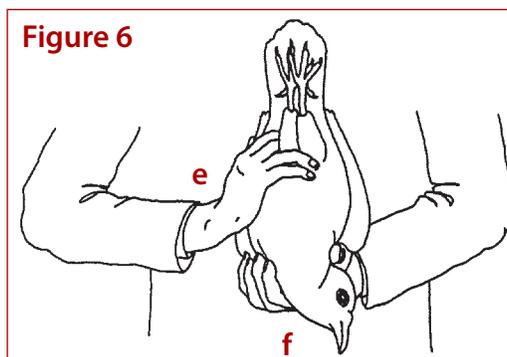


Figure 6—The keel and other body regions on the underside of the pigeon can be shown by turning the pigeon's head downward with the grip hand (e) and providing extra support with the free hand (f). In turning the pigeon's head downward, the axis of the pigeon and handler should be directly parallel.



Pigeon handlers should adapt their own variations of showmanship techniques based on individual experiences and preferences.

Handlers should maintain showmanship standards of good behavior, appearance, and conduct. They should:

- Be neat and clean
- Be courteous to the judge and to other handlers

- Be alert and watch the judge at all times
- Accept the placement earned in the contest graciously
- Enjoy themselves

A slide set on pigeon showmanship is available for loan through your local Extension 4-H office.

Note: The handler in figures 4, 5, and 6 is left-handed.

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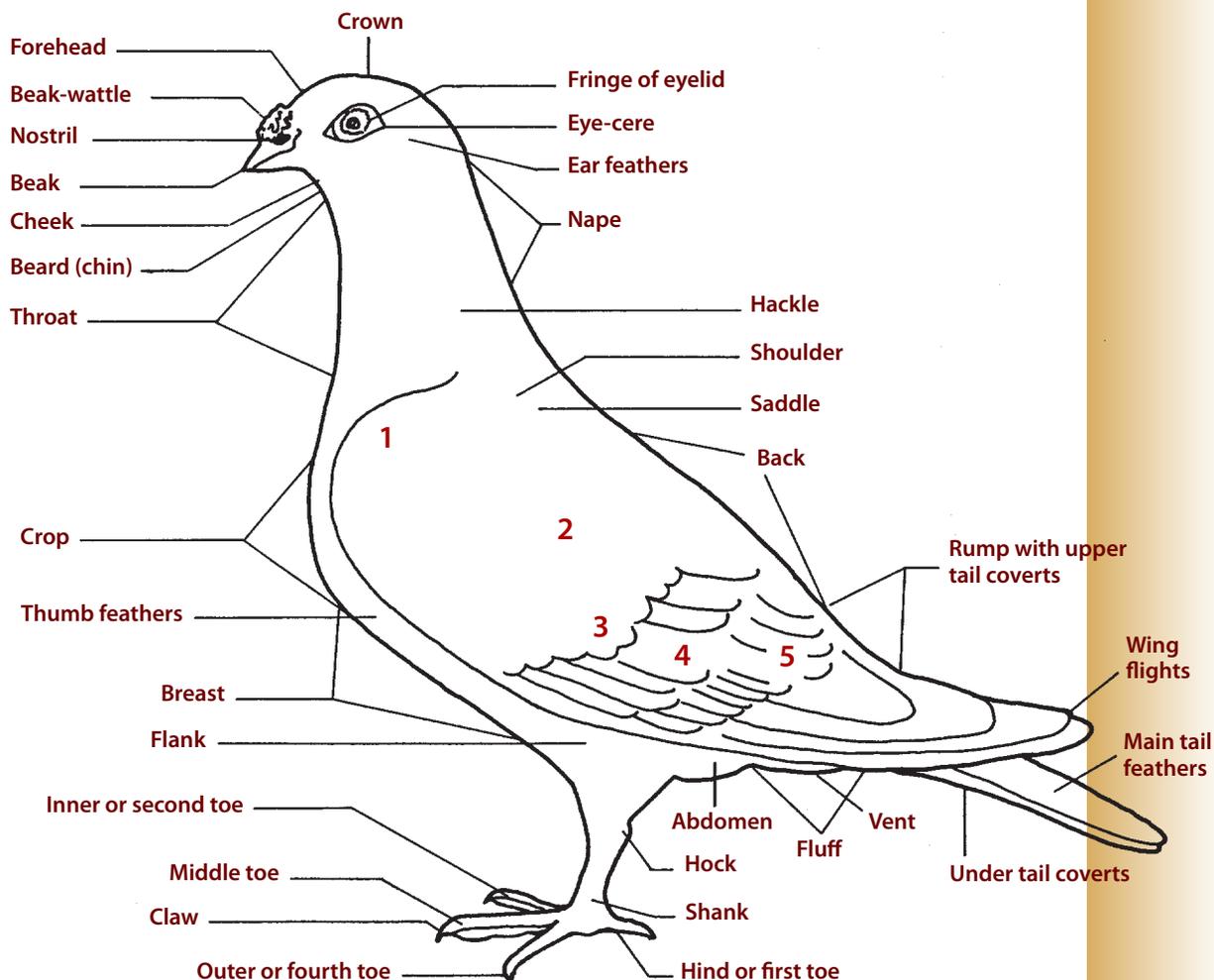
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Pigeon Chart

(Dove parts are similar.)



Wing

1. Wrist or wing butt
2. Lesser coverts
3. Middle coverts
4. Second wing bar
5. First wing bar

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