

HUNTING in HAWAII

Wildlife Identification Guide

This booklet contains short descriptions of the 15 species of game birds and 7 species of game mammals currently found in Hawaii. This material is for the purpose of general information only. Questions regarding game laws should be referred to the Division of Conservation and Resources Enforcement, with offices on each of the islands. Further information about any of the game mammals and birds, or how best to hunt them, can be obtained from the Division of Forestry and Wildlife on each major island or the central office in Honolulu, Oahu. The office addresses of the Division of Forestry and Wildlife and Division of Conservation and Resources Enforcement are listed on the inside front cover of this booklet.



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Hawaii's Official Hunting Resource





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AXIS DEER

(Axis axis)

DESCRIPTION: Males antlered part of the year, females never. Bucks stand about 3½ feet at the shoulder, averaging 160 pounds live weight, but with weights up to 229 pounds recorded. Females average 90 pounds. Both sexes are spotted for life; the coats on the majority of deer are a golden brown on the back and flanks with nickel-sized white spots arranged in rows from the neck backwards; the throat, belly, and inside of legs are a cream-white, and a black dorsal stripe runs down the spine. Old bucks often turn a grizzled charcoal-gray about the face, neck, and forequarters—usually a sure sign of a trophy!

RANGE: The major huntable populations are on the islands of Molokai and Lanai, where there is a total of some 15,000 deer. A herd has been introduced to Maui with the hope of future hunting there. Axis deer prefer an open, parkland forest, such as is found in the kiawe (mesquite) zone. They have also become established in the dense rain forest. The native range is in parkland forests of India and Ceylon.

BREEDING: Axis deer in Hawaii, like their brethren in India, breed at varying times throughout the year. Consequently one can always find bucks in various stages of antler development. Only one fawn is produced each year, with a fawning peak in December, January, and February. The mild climate permits excellent fawn survival.

FOOD PREFERENCES: In the lower dry areas, kiawe, klu, lantana, and guinea grass are favored; Hilo grass, drymaria, ulei, and pukiawe are prime foods in the higher, wet areas.

HUNTING AND EATING QUALITIES: Hunted on Public Hunting Areas in March and April, the unique antler formation of this deer (always 3 points) make it a treasured trophy. Axis deer have a flavor of their own, tasting nothing like mainland deer; it is considered one of the best of wild meats.



Courtesy of Mike Thomas

BLACK-TAILED DEER (*Odocoileus hemionus*)

DESCRIPTION: A distinct race of the Rocky Mountain mule deer, the black-tailed deer is somewhat smaller than the true “mulies.” Only bucks develop antlers. Generally, the older the buck, the larger the antlers. Antlers are dropped each year about January; shortly thereafter re-growth begins and new antlers are fully developed by August. Mature bucks range between 130 and 190 pounds averaging 160 pounds, with records up to 207 pounds. Does weigh much less, averaging 125 pounds when mature. Only fawns have spotted coats. Adults are gray-brown during the fall and winter months, molting to a reddish-brown coat during the spring and summer. The forehead and outer tail are black.

RANGE: Native to the northwest coastal United States, Kauai’s black-tailed deer were obtained from the State of Oregon. They were first released in 1961 in the Puu Ka Pele Game Management area on western Kauai. Forty deer were liberated between 1961 and 1966. The population is estimated at 400 deer and remaining stable. Their range includes all of the brushy broken ridgeland lying west of the rim of Waimea Canyon. A few deer have ventured into Waimea Canyon and portions of Kokee State Park. Black-tailed deer prefer dense cover intermingled with open meadows and ridge shoulders.

BREEDING: Kauai black-tailed deer have a breeding cycle similar to their mainland kin. Breeding takes place between October and December. The gestation period is about 7 months and fawns are born between April and June. Twins are not uncommon for older does, though younger does usually bear a single fawn. A less definite fawning peak occurs in Hawaii than in mainland herds.

FOOD PREFERENCES: Browse and fruits are preferred over grasses. Guava fruit, passion fruit flower and vines, uki uki, mushrooms, koa shoots and horseweed are prime foods used by deer throughout their range.

HUNTING AND EATING QUALITIES: Usually hunted in October, when the bucks have hardened antlers, this species can be very challenging to hunt. Black-tailed deer are very wary and seek dense cover when pursued. A mature black-tail can provide a handsome trophy, sometimes with as many as 5 points on a beam. The meat quality is considered excellent if properly handled in the field. The abundant sweet foods consumed by the Kauai deer apparently diminish the “gaminess” commonly noted in mainland venison.



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MOUFLON

(*Ovis musimon*)

DESCRIPTION: Also called the European Bighorn sheep, this animal is one of the ancestors of domestic sheep. The rams weigh about 125 pounds with ewes somewhat lighter. Both sexes may be recognized by their generally brownish tan body color, with a distinct white saddle patch during some seasons. The underparts and inner side of the limbs are white; the rump is white with a short black tail. The horns of the ram are yellowish brown, characterized by one wide sweep. Ewes are usually hornless. The mouflon is a truly wild animal with an erect, alert posture and lacks the shaggy wool of the feral sheep.

RANGE: Originally native only to the Islands of Sardinia and Corsica in the Mediterranean, this wild sheep has been introduced throughout Europe and Africa. In its native habitat it is adapted to high mountain heather areas, where it seeks refuge in coniferous forests when pursued. In Hawaii it is established on Mauna Kea and Mauna Loa on Hawaii Island in the high mountain forests and on Lanai along the dry kiawe and grassland coast of the northwest portion of the island.

BREEDING: Rams fight during the mating season in December and January, and successful males become leaders of small parties of ewes. During the off-breeding season in Hawaii, however, rams have been noted in unisexual groups. Lambs are born in April and May either as singles or as twins as with domestic sheep. The gestation period is five months.

FOOD PREFERENCES: Mouflon are primarily grazers and browsers and feed on a variety of native and introduced grasses, forbs, fern allies, shrubs, and tree components. In captivity they eat green hay and barley readily. Water in a "free" state is not necessary to the mouflon, and it survives on moisture obtained in green vegetation.

HUNTING AND EATING QUALITIES: A wary animal, it is difficult to stalk due to its alertness and tendency to seek out dense brush or forest when disturbed. A full grown ram is a spectacular trophy with its multicolored coat, wide spreading horns and black neck mane. The meat is delicious and can be prepared like mutton.



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FERAL SHEEP (*Ovis aries*)

DESCRIPTION: A familiar animal, the feral sheep of Hawaii is a cross of several breeds of domestic sheep which have been introduced to the islands in the last two centuries. They are much larger than the small fleece producing sheep commonly seen on the mainland; the rams average about 100 pounds, with a few oldtimers approaching the 150 pound mark. Colorwise, animals are seen in mixed flocks of black, brown, gray, white and all tones between. They have a heavy fleece coat over the entire body except on the face and legs. Animals seen with part wool/part fur coats may be hybrid crosses with the introduced mouflon sheep.

RANGE: Found on the “Big Island” of Hawaii where they range the slopes of Mauna Kea, Hualalai, and Mauna Loa, on private, military and State lands.

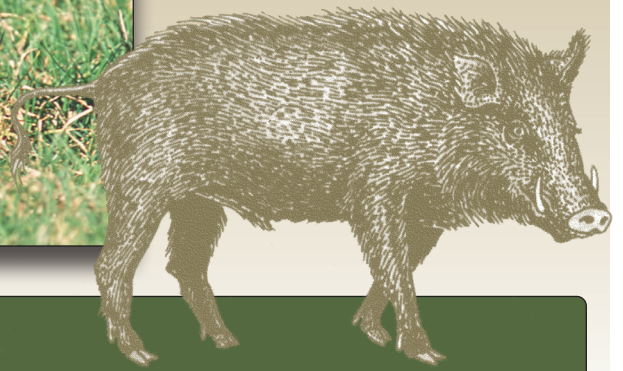
BREEDING: Ewes are capable of breeding the first time at an age of about 5 months. Ordinarily only 1 lamb is born the first time, and then 1, 2 or rarely 3 lambs are born at intervals of about 6 months.

FOOD PREFERENCES: Sheep have destructive feeding habits. They remain in flocks, move into an area of lush vegetation and if undisturbed, feed on the available food supply until it is depleted to a point that they are forced to move on. This seriously affects the regenerative powers of the plants in question and consequently lowers the growth rate.

HUNTING AND EATING QUALITIES: At 7,000 to 12,000 feet, it takes a hunter with a good set of lungs, not to mention a good pair of legs, to circle a mile around a flock of hunter-shy sheep, and still have enough wind left to calmly squeeze off a 150–200 yard shot for that big ram. Eating? Great!



Courtesy of USDA Natural Resources Conservation Service



FERAL PIG (*Sus scrofa*)

DESCRIPTION: The early Polynesian voyagers brought pigs with them to the islands and their descendants roam the island of Hawaii today. High on the slopes of Mauna Kea and Mauna Loa and on Kauai one still finds a smaller pig, averaging 125 pounds, which is usually black and heavily haired; this is believed to be the Polynesian type. Later introductions were made of domestic breeds from all over the world. Consequently, on the islands of Kauai, Oahu, Molokai, Maui and on parts of Hawaii, there is a mixture of size and colors, ranging from black through red to white. These pigs often weigh over 200 pounds, and occasionally range up to 400 pounds.

RANGE: All major islands except Lanai, where they were exterminated many years ago. Today they live primarily in the wet forest, but if undisturbed, do well in the lower dry forest and scrub as well as pasture lands.

BREEDING: Sows reach the age of puberty at 3 to 5 months and bear litters of 2 to 8 piglets, although litters of up to 14 are not unheard of. The gestation period is 110–116 days.

FOOD PREFERENCES: Pigs will eat almost any animal or plant matter, living or dead, but thrive primarily on roots, tender plant stalks, fruits, and where abundant, earthworms.

HUNTING AND EATING QUALITIES: The majority of pig hunting is done with the use of dogs; indeed, this is about the only way one can bag a pig in the dense rainforests where the greatest populations occur. This is a thrilling sport with many hunters using only a long knife to dispatch the pig while the dogs hang on to its snout and ears. Tackling a 200 pound boar with tusks up to 3 or 4 inches long is not for the clumsy or hesitant hunter. The next best manner of bagging your porker is “still” hunting. The trick is to find a freshly rooted area, where there is a clear field of fire, and a quartering wind: then sit quietly just before dawn or at dusk, and wait for them. Pigs usually bed down during the daylight hours. Pigs taken in drier habitat are invariably good eating, but pigs from the fern forests often acquire the flavor of the vegetation.



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FERAL GOAT (*Capra hircus*)

DESCRIPTION: A familiar animal to all, the feral goats of Hawaii vary greatly in size, shape and coloration. Goats in areas exposed to possible new introduction of genetic strains (i.e., where domestic animals may escape into the wild), show the greatest variation and are usually of small size. Isolated populations, such as those in the Molokai rainforest, are usually uniform in color patterns and individuals occasionally weigh over 100 pounds.

RANGE: Feral goats are found on all islands (low numbers on Lanai), from sea level to the summit of Haleakala on Maui. The preferred habitat is along the steep cliff edges, deep canyons, or barren lava flows. They are usually found in the dense forests only when forced to exist there by hunting pressure. Due to their preference for living along the steep canyon and valley rims, in some areas they have caused extensive erosion and gradual denudation of the vegetative cover. Eradication programs in the past decade, and currently carefully controlled public hunting on State lands, have kept further damage to a minimum.

BREEDING: Nannies are capable of breeding for the first time at the age of 5 months. The gestation period is from 140 to 160 days; consequently females can bear young twice within a year, and do in most cases. One kid is the average, but twins are often born.

FOOD PREFERENCES: Goats in the wild are opportunistic grazers and browsers, but little is known of their preferred foods. It is likely that they will sample almost any green plant. They need little or no water if green vegetation is available.

HUNTING AND EATING QUALITIES: The majority of goats hunted in the islands are taken for eating purposes. Although possessing a “pungent” odor in the wild, when properly dressed and prepared, goat meat is delicious. When soaked in teriyaki sauce, ginger, garlic, vinegar and then barbecued, “seconds” are a must! The trophy horns of a big billy are highly esteemed by local hunters and add a unique note to any collection. The conformation of the horns vary greatly from herd to herd, with some populations flaring widely and others having tightly curled horns similar to sheep.



Courtesy of U.S. Fish & Wildlife Service



PRONGHORN

(Antilocapra americana)

DESCRIPTION: Often called the pronghorn “antelope,” it is not a true antelope but belongs to a family all its own. Both males and females have horns which curve inward at the tip; the horn sheath is dropped each year. About the size of a small deer, the males weigh between 100 and 125 pounds and females average about 90 pounds. Sexes are colored alike, the upper parts a rich reddish brown or tan, and the rump, lower sides, sides of head and underparts a white or cream color. The underside of the neck is crossed with two white bars, and a dark patch under the ear is most pronounced in the male. The pronghorn is able to spread the white hairs on the rump to produce a “flag” which can be seen at a great distance when the animal is excited. Young are similar in color to adults with the white on the sides less pronounced at first.

RANGE: Native to the prairie lands of North America, the pronghorn was introduced to the grassy plateau on the north end of Lanai in 1959. From an original release of 18 animals, the herd increased to over 150 animals by 1967 and filled most of the available 35 square miles of habitat. The herd is presently reduced to only a few individuals. It prefers open country and seldom enters forested areas.

BREEDING: The mating season occurs during the summer months and kids are born 8 months later, usually as singles but occasionally as twins. The pronghorn is polygamous, and bucks mate with several does, although they do not form true “harems.”

FOOD PREFERENCES: A variety of grasses, forbs and shrubs are eaten and on Lanai a large portion of the diet is made up of haole koa. It is a browser as well as a grazer.

HUNTING: Although the population initially increased rapidly, the unsuitability of the habitat and availability of adequate grazing led to a decline of the population. Unfortunately, poaching led to the demise of the pronghorn in Hawaii.



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KALIJ PHEASANT (*Lophura leucomelana*)

DESCRIPTION: Males' body 10 to 12 inches; the tail about the same length, stands from 15 to 17 inches tall. A long crest of light disintegrated feathers; back, legs and wings a dark bluish black; buff colored chest and scarlet wattles. Females crest and body plumage tending to be browner than in the males.

RANGE: Native to western India and Nepal from 1,700 feet upward to 11,000 feet. In Hawaii, found only on the Big Island from sea level to 8,500 feet in forests and thickets.

BREEDING: In India, nesting begins in May; probably the same in Hawaii. Nests are shallow depressions lined with grass or twigs and contain an average of eight eggs.

FOOD PREFERENCE: An omnivorous feeder eats many types of seeds, berries, grass, insects, larvae, worms and reptiles.

HUNTING AND EATING QUALITIES: Often found in groups, the Kalij is a strong straight flyer but prefers to run into deep cover rather than flush. Capable of uttering a squealing whistle often followed by clucking sounds when excited or alarmed. A light white meat considered fine eating.



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GRAY FRANCOLIN (*Francolinus pondicerianus*)

DESCRIPTION: Length 13 inches; color is brownish, the breast grayish with prominent black barring; back chestnut and brown barred with buff; outer tail feathers chestnut. Sexes are alike except for long, sharp spurs on the legs of the male.

RANGE: Native to India and found in a variety of habitats including dry, open grass and shrub country. In Hawaii it is established on all islands and is found in greatest numbers on the island of Lanai where it inhabits the dry haole koa shrub and grasslands, particularly along the edges of pineapple fields.

BREEDING: March through June in Hawaii. Generally 6 to 9 eggs are laid, and incubated for 18 to 19 days. A grass-lined nest is built on the ground.

FOOD PREFERENCES: Omnivorous. Grains, weed seeds, vegetable matter and insects are eaten. On Lanai some evidence of feeding on ripe pineapples has been noted.

HUNTING AND EATING QUALITIES: On Lanai, more gray francolins are harvested than ring-necked pheasants. They prefer to run rather than flush, and dogs should be used if possible. It is noted for its weird piercing call sounding like "titur, titur, titur" which can be heard at great distances. The flesh is white, dry and not too gamey. In India they are served fried and considered great delicacies.



Courtesy of USDA Natural Resources Conservation Service

RING-NECKED PHEASANT (*Phasianus colchicus*)

DESCRIPTION: Length of male about 33 inches, tail 16 to 20 inches. This is such a familiar bird, there is little need to describe it to the sportsman.

RANGE: Found on all islands, this species ranges throughout all available habitat exclusive of dense rainforests with associated heavy rainfall. It continually amazes mainland hunters to find peak pheasant populations at 7,000 feet amidst heavy forest cover and at the same time in the dry cactus/mesquite forest associations near the seashore. Originally introduced to the islands about 1875 with many subsequent liberations.

BREEDING: Primarily, from February through July. Cocks begin crowing in late January for breeding purposes but lone males may be heard calling throughout the year. Most laying begins early in March, with the hen making her nest on the ground in slight depressions, which either occur naturally or are created by slight scrapings away of the vegetation. Eggs vary in number from 6 to 11 per nest, with incubation requiring about 23 days. If, for some reason, nesting attempts are unsuccessful, a hen may lay 2 or 3 clutches throughout the summer in an attempt to bring off a successful brood.

FOOD PREFERENCES: Pheasants generally are omnivorous and will take that food which is most easily available. Seeds, browse, fruit, animal and insect matter are all taken, with insect matter being extremely common in the lower areas, and seeds being taken in largest numbers in the guava, lantana zones.

HUNTING AND EATING QUALITIES: Little need be said on either count; sportsmen the world over are familiar with the excellent qualities of this game bird. However, local hunters seem to exhibit a degree of favoritism in their bird hunting, with some going afield primarily for quail, but glad of the chance to bag a pheasant, while other avid pheasant hunters have been known to charge unheedingly through a prime quail covey in pursuit of their favored quarry.



GREEN PHEASANT

(*Phasianus colchicus versicolor*)

DESCRIPTION: Slightly smaller than the ring-neck; the hens are similar in all species, but the white collar is absent in the males, the neck is purple, the under-parts are green, and the back is a deep bluish-green. This species hybridizes readily with the ring-necked at the outer margins of its range with these birds exhibiting various combinations between the ring-necked and the green pheasant plumage.

RANGE: The only 2 areas of green pheasant concentration are on the windward slopes of Mauna Kea and Mauna Loa on the Big Island. There are small isolated, and usually hybridized, populations of this species on Maui and Oahu. Areas of major concentration on Hawaii are generally between the 4,000–7,000 foot level in gently sloping areas with frequent mist and/or almost continuous light rainfall.

BREEDING, FOOD, HUNTING QUALITIES: Similar to ring-necked pheasant.



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BLACK FRANCOLIN (*Francolinus francolinus*)

DESCRIPTION: Length 13 inches; both sexes with scaled markings on top and sides of body. Female generally brown and chestnut; male has conspicuous black underparts spotted with white, head black with white stripe behind the eye and a broad chestnut collar. Male has blunt spurs, female usually none.

RANGE: Native to Northern India up to 7,000 feet in elevation in a variety of habitats where standing water is available. Introduced directly from India to all islands except Lanai and Oahu. It is now established on Molokai, Hawaii, Kauai and Maui. Although very limited on Kauai, they are restricted to a narrow belt between 1,000 and 2,000 feet elevation in lantana brushland. Has adapted to areas where irrigation ditches and reservoirs are available, often quite near human habitation.

BREEDING: The breeding season is April through July. They lay 6 to 12 olive-colored eggs, incubating 18–19 days. Nests are on the ground or in low branches of shrubs.

FOOD PREFERENCES: An omnivorous feeder, it eats grains, weed seeds, insects, and greens. Its tendency to devour almost anything edible makes it a bird adaptable to a variety of habitats.

HUNTING AND EATING QUALITIES: Flushes more readily than the Gray Francolin, but a dog should be used. Flies straight and fast when flushed, an excellent game bird. Flesh white and sweet, although some consider it too dry and bland. Roasted, they are pleasing to the palate.



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ERCKEL'S FRANCOLIN (*Francolinus erckelii*)

DESCRIPTION: A large partridge-like bird; males about 16 inches long weighing 3½ pounds; females smaller, weighing about 2½ pounds. Distinguished by chestnut colored crown, white throat and elongated spots on the breast and belly. Males have two well-developed spurs on the legs.

RANGE: Native to the Ethiopia and Sudan areas of Eastern Africa, it was first introduced to Hawaii in 1957 on all major islands, but is now found in appreciable numbers only on Hawaii, Lanai, Oahu and Kauai. It favors semi-arid scrublands, brushy areas, rocky slopes and open forests. A highly adaptable game bird, it is found from sea level to 7,000 feet.

BREEDING: During breeding seasons (April through July), males crow loudly in a distinctive “cackle” and are very pugnacious. Nests consist of a scrape in the ground lined with grass and the eggs are dirty white and very hard shelled. Fairly large flocks are formed after young birds near maturity and before the breeding season starts.

FOOD PREFERENCES: These game birds are omnivorous and consume a variety of fruits, roots, grass shoots, seeds and insects. Little is known of the exact food habits of this species either in its native land or in Hawaii. They are much more adaptable to thick brushy areas than are ring-necked or green pheasants.

HUNTING AND EATING QUALITIES: This is a ground dwelling bird which does not flush readily, but prefers to run. When it does flush it flies low and fast. Its flesh is all white and provides a fine meal for the sportsmen.



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CHUKAR (*Alectoris chukar*)

DESCRIPTION: Length 15 inches; body of both sexes brownish olive to ashy, with black and white barred flanks; black stripe runs across forehead, through eye, then down and rejoins on lower throat; bill, feet, and eye-ring red.

RANGE: Introduced to all major islands, but major populations now only on Hawaii, Maui and Lanai. Primary habitat on Hawaii or Maui is at timber line and higher, on bare rocky slopes. On Lanai, they favor coastal or gulch cliff areas. Native range of the presently established subspecies is India and Tibet, from 5,000 feet upward.

BREEDING: Primarily from late March through July. Clutch sizes are large with an average of 15–16 eggs being laid.

FOOD PREFERENCES: Chukars appear to prefer green browse. On Lanai they thrive on salt-bush and pualele, with insects taken as available. On Hawaii and Maui, gosmore is a favored food with fruits and berries such as ohelo and pukiawe being common.

HUNTING AND EATING QUALITIES: Living on the high, jagged volcanic flows and among tumbled rock piles at the edges of steep gulches, this bird is safe from all but the most rugged of hunters. Perfectly camouflaged, coveys take flight at a speed amazing even to seasoned quail hunters, or, if caught on open ground, will run a hunter unused to the altitude, to exhaustion. The pure white meat of this bird is a gourmet's delight and two birds provide the hungriest hunter a satisfying meal.



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CALIFORNIA QUAIL

(Callipepla californica)

DESCRIPTION: Length 10 inches; the short black topknot and black and white patterned face are distinctive in males, with the female having a shorter topknot and brownish head which matches the rest of the body. The recently introduced Gambel's Quail can be distinguished by the rufous instead of gray-black crown, the chestnut stripings on the sides, and the lack of a scaled pattern across the lower breast.

RANGE: Major populations on Molokai and Hawaii; found also on Maui, Lanai, and Kauai. Found from sea level to 11,000 feet, primarily on the leeward sides of these islands in a wide range of habitat, but primarily in open parkland forests or pasture land of varying vegetative composition. Introduced from California prior to 1890.

BREEDING: The period from early February through late July encompasses the pairing, nesting, incubation, and hatching processes, after which time coveys start to form. Primitive nests are made near brush piles, clumps of weeds, cactus, etc., and are rarely more than $\frac{1}{3}$ mile from water of some sort. From 6 to 12 eggs are laid; the precocial chicks leave the nest within hours after hatching and within 2 weeks are strong fliers resembling when flushed, a swarm of giant bumblebees.

FOOD PREFERENCES: Adult quail are primarily seed eaters, but also take large quantities of browse and insects, especially when water is difficult to obtain. Kiawe beans, ekoa, Japanese tea seeds, pualele leaves and flowers are good examples of favored foods. Fruits, such as guava, are rarely eaten.

HUNTING AND EATING QUALITIES: Long a favored game bird, this quail provides wonderful gunning with a dog. Coveys of over 300 birds have been counted on Molokai and when the hunter jumps one this size, it is only the calmest of men who bags 3 or 4 on the first rise. Limits can then usually be taken from the broken covey. A rich, dark meat, they are best broiled with the skin on, with applesauce on the side.



Courtesy of U.S. Fish & Wildlife Service

GAMBEL'S QUAIL (*Callipepla gambelii*)

DESCRIPTION: Similar to the California Quail except males have a rufous patch on the head, chestnut stripings on the sides and lack a scaled pattern across the lower breast. Females lack scaling on the breast also. Both sexes have a topknot, the males' being more pronounced.

RANGE: Native to the Southwestern U.S., this species has been introduced to all islands except Molokai, but is established only on Lanai and Kahoolawe. It inhabits areas similar to those on the mainland—dry, semi-arid kiawe (mesquite) forests where it seems to thrive with very little water.

BREEDING: Egg laying occurs in March and April, with 12 eggs usually being laid. The incubation period is from 21 to 24 days and both parents share in caring for the chicks. The nest is usually well formed and placed under a shrub. This quail is noted for its ability to survive and reproduce during the hottest of weather.

FOOD PREFERENCES: Primarily vegetarian, but may take insects when available. Food consists of weed seeds and grains, and during the spring months greens and buds. As can be expected, kiawe beans are an important part of the diet.

HUNTING AND EATING QUALITIES: Although an excellent sporting bird, its tendency to hide in thick brush and run from clump to clump makes shooting difficult. On Lanai, hunters usually bag most of their birds along the edges of the pineapple fields. The Gambel's Quail is a plump and delicious morsel for the table and can be prepared similarly to the California Quail.



JAPANESE QUAIL

(Coturnix japonica)

DESCRIPTION: Length 6½ inches. Dorsal color pattern mixed, chestnut, black and white. Male has a uniform black or cinnamon bib on the throat, while the female throat is a light buff.

RANGE: Found sparsely on all islands; primarily on pasture lands below 7,000 feet. In its native range of China and Japan this species is migratory but there is no evidence of this in Hawaii. Introduced originally to Maui and Lanai in 1921.

BREEDING: March through September. Nests are shallow, grass-filled depressions in the ground. Five to eight eggs per clutch.

FOOD PREFERENCES: Seeds comprise 58% of the food and insects 42%. Little browse is taken.

HUNTING AND EATING QUALITIES: Averaging only 3 ounces in weight, this bird provides little for the meat hunter, but with its attitude of “holding tight” and finally buzzing off in a flat, low trajectory, it provides a startling target.



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CHESTNUT-BELLIED SANDGROUSE (*Pterocles exustus*)

DESCRIPTION: Also called the Indian Sandgrouse. About the size of a Spotted (large) Dove. Male khaki colored; flight and tail feathers darker brown or black. A horizontal black band crosses the chest. Female has darker spots and much less noticeable band across the chest. The tarsi are feathered in the front.

RANGE: Native range from India to Africa. In Hawaii, known only to frequent the plains of Waimea on the Island of Hawaii.

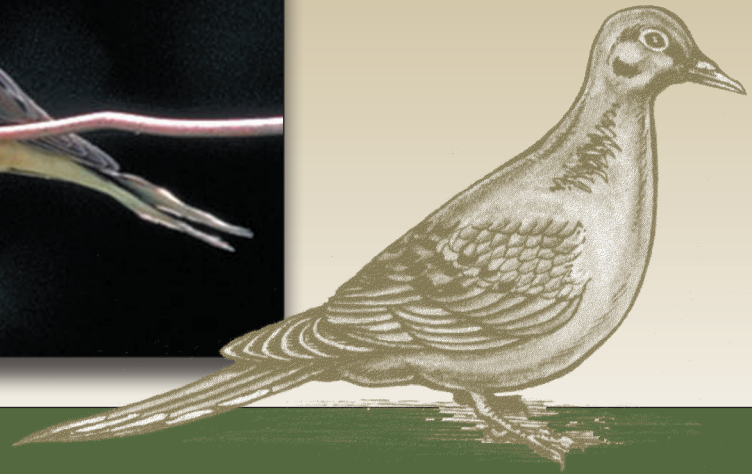
BREEDING: Little is known of breeding habits in Hawaii. A ground nester, eggs are laid on the ground with little or no nesting material.

FOOD PREFERENCES: A seed eater preferring hard seeds.

HUNTING AND EATING QUALITIES: A fast flyer often found close to streams or open fresh water. Sandgrouse are often shot in flyways as they come into water. The sandgrouse is reported to be excellent table fare.



Courtesy of Texas Parks and Wildlife



MOURNING DOVE

(Zenaida macroura)

DESCRIPTION: A streamlined bird from 11 to 13 inches long with a small head and long pointed tail. Coloration is a slaty blue gray on the back and a rosy or reddish fawn breast. Head is small with a light blue crown and nape and a small black spot below and behind the dark eye. The bill is black and the feet are red.

RANGE: Native to North and Central America. First released on the Island of Hawaii in 1929 and re-released in 1963. It is now found in fair numbers only in the North Kona region of the Big Island.

BREEDING: In the northern part of their range in North America, the nesting season extends from April through September. In some of the southern states they have been reported to nest throughout year; this is probably the case in Hawaii.

FOOD PREFERENCES: Almost entirely a seed or grain eater.

HUNTING AND EATING QUALITIES: A swift straight flyer producing a diagnostic whistling of the wings while flying. Cooked over a low moist heat, mourning doves are toothsome morsels meant to be savored.



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SPOTTED DOVE (*Streptopelia chinensis*)

DESCRIPTION: Length 10 to 11 inches; body largely gray-brown, neck spotted in adults, tail white-tipped except middle quill.

RANGE: On all islands from sea level to 4,000 feet or higher. Found on all types of land except barren lava; rarely in rain forests. Definite flights from roosting areas to feeding and watering grounds occur unless disrupted by overshooting; these flights are usually up and down shallow valleys. Original range was Eastern Asia.

BREEDING: Throughout the year but primarily from February through October. Nest is about 7 inches in diameter, in trees from 5 to 35 feet high. Two eggs are laid and 2 to 4 broods are produced each year.

FOOD PREFERENCES: Ilima, popolo, and balsam apple are taken commonly and pigeon pea is eagerly sought when available. Seeds constitute about $\frac{3}{4}$ of the diet, and fruit about $\frac{1}{4}$. Insects are taken only occasionally.

HUNTING AND EATING QUALITIES: One of the favored, “easy hunting” game birds, hunters seek out flyways in early morning and late afternoon and shoot from camouflaged positions. This species makes an excellent “starter” for the young beginner since there is little or no arduous hiking involved and can usually be seen coming from a distance. An excellent dark-meat bird of subtle flavor. Three or four birds make a meal.



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ZEBRA DOVE

(Geopelia striata)

DESCRIPTION: Also called the Barred Dove; length 8 inches; body, excluding breast and belly, heavily barred with black on a grayish background; breast often pinkish, belly gray; flesh around bill, eye, and feet often bluish.

RANGE: Found in great abundance on all islands except in dense rainforests. Zebra Doves exist in all types of land use conditions. Original range was the Malay Archipelago.

BREEDING: Breed throughout the year but with peaks of activity in March and September. A shallow, saucer-shaped nest about 4 inches in diameter is made in shrubs or trees at heights from 4 to 20 feet. Up to 5 clutches of 2 eggs each may be raised annually.

FOOD PREFERENCES: The Zebra Dove, like the Spotted Dove, is primarily a seed eater, but in general tends to feed on smaller seeded plants such as Amaranth or on tiny grass seeds. On occasion, tiny black souring beetles which live in over-ripe pineapple plants are eaten in great numbers.

HUNTING AND EATING QUALITIES: By far the most abundant game bird in Hawaii, this species is sadly underharvested. This is largely due to the small size of the bird; local hunters hesitate to expend shells on this bird when larger game is available, and due to its tricky flight pattern it requires considerably more shells to bring this bird to bag. If at the end of the season you have averaged only 3 shells per bird, you may consider yourself an expert shot!



Courtesy of USDA Natural Resources Conservation Service

WILD TURKEY (*Meleagris gallopavo*)

DESCRIPTION: Our largest game bird; gobblers about four feet long, averaging 18 pounds, hens three feet, averaging 9 pounds. Males have wattles on the neck, “beards” on the breast and well-developed leg spurs. Rio Grande turkeys can be distinguished from domestic strains which have white-tipped tails by the brownish-bronze coloration of the same area.

RANGE: Original range: Texas, New Mexico, Oklahoma and Kansas. Introduced to Hawaii in 1962. Now found in huntable numbers only on Lanai, Molokai and Hawaii. Favors open forested areas and brushlands where roosting areas are available from sea level to 6,000 feet or more.

BREEDING: An average of 12 eggs are laid in a well-made nest on the ground during the spring months. Incubation takes about 28 days. “Gobblers” are noted for their vociferousness and strutting with tails fanned during the breeding season.

FOOD PREFERENCES: Feed on kiawe beans, seeds, grains, berries, plant tops, large insects and snails-omnivorous.

HUNTING AND EATING QUALITIES: Because of its large size and abundant white meat, it is much sought after by hunters. Meat from birds of kiawe areas is “dry” when compared to domestic turkeys. Flights are usually made from slight rises or tree perches providing a large target for the shooter. However, most hunting is done by flushing first and then calling them into a blind and shooting on the ground. Heavy gauge shotguns with large shot are used by most hunters.