

Long-crowing and Long-tailed Chickens - Characteristics of the Breeds

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Chicken breeding has for ages been an important element of people's everyday lives, allowing them to satisfy their demand for eggs and meat. Concurrently, as in different parts of the world people have different tastes and needs, new breeds have developed, fit for different purposes. Currently, both in Poland and in other European countries (especially in Western Europe), growing interest in breeding ornamental chickens, i.e. ones that have no useful purpose, but are selected as pets. Ornamental chickens are bred by enthusiasts as a hobby and an element of day-to-day life (Nowicki et al., 2010; Gugolek et al., 2016). Next to its practical significance, poultry keeping has long been treated as a source of pleasure generated by contact with the birds.

Poland has a long tradition of breeding clubs and shows where breeders present their specimens (including chickens of different breeds). One of the first associations of this type was the 'Ornithological Club' established on 23 November 1894, with Maria Czartoryska as the protectress (Gilar-ski, 2015). Today, the tradition is continued by numerous Breeders' Clubs resiliently operating all over Poland, usually on a regional scale, under the supervision of the Polish Association of Pedigree Dove, Pigeon and Small Livestock Breeders. They cultivate the old poultry breeding tradition (including the very rare species), significantly contribute to their protection against extinction and play a vital social role, gathering people with similar passions, facilitating the exchange of experiences and allowing the members to combine their strengths.

Ornamental chickens are divided into subgroups based on common features. A very specific subgroup is made by long-crowers and long-tails. Long-crowing roosters have the unique ability to continue one crow for much longer than males representing other breeds (Brzóska et al., 2012). The breeds originate mostly from Asia. Some are distinguished by a very unique tone and melody of the crow, far different from the common sound associated with sounds emitted by roosters. The sound is not continuous but phrased, and resembles chuckle. As the crowing is long, while producing it the roosters take on a very specific position, stretching their neck forward (Łukasiewicz, 2011). In some countries there is a tradition of cock crowing contests, where among the features assessed are the length of the crow, the tone, melody and absence of hoarseness.

Long-tailed breeds, especially roosters, have non-moulting tail feathers (sickles and rectrices) that grow throughout the life of the birds. Therefore, the older the specimen the longer its tail. The birds are particularly long-lived. They can reach the age of 10+ years, and grow a tail of up to 13 m (Schöne and Peschke, 2006).

In the face of the growing popularity of ornamental chickens and the apparent scarcity of specialised literature in Polish, a need has been identified to discuss the specific features and origins of individual breeds. Therefore, the aim of this study is to provide an overview and characterise selected long-crowing and long-tailed chicken breeds.

Ayam Ketawa

Ayam Ketawa is a long-crower. In Malay, ayam stands for 'chicken', while ketawa means 'laugh', which is why the breed is commonly known as 'laughing chicken', also in English. The name alludes to the unique crowing phase characteristic for Ketawa rooster, its modulation and tone: the crowing can last up to 20-60 seconds and contain several dozen sounds. The breed is subdivided into three types differing in the nature of the sound produced by roosters. These are: gretek (faster voice with fewer pauses), dangdut (heave, resonant timbre), and slow (melodious sound with no intervals) (<https://cemanifarms.com/laughing-chicken/>). The breed originates from Celebes, an island in Indonesia, and was later popularised in the whole country. Ayam Ketawa has been known in Europe since quite recently, as the Indonesians are reluctant to sell their birds to foreigners. For them, their fowls have been an inherent element of their national culture which they would rather not share with the world. This approach is rooted in the Indonesian tradition, as the breed was originally held as a symbol of the owner's high social status. They were under the custody of the Buginese royal family which regulated the right to hold them. Being given a pair of Ayam Ketawa fowl from the king as a gift was an honour and a sign of social advancement, which the rooster's crow would announce day after day to the remaining residents of the village. Since the fall of the monarchy the breed has entered into higher popularity among Indonesians. Today, it can also be found in Europe, although in little numbers only. Single specimens are sometimes presented during fowl shows. This is a breed with a slender body, which resembles light chickens (Phot. 1). The birds' head is proportional, with a straight comb. The earlobes are big and white. It is the laughter emitted by roosters rather than the anatomical features of Ayam Ketawa that is being the main target of all breed improvement efforts. The weight is on average 2-3 kg for roosters and 1.5-2 kg for hens. The egg yield from hens is very low, as they annually produce 30-60 white eggs weighing 50 g.

Ayam Pelung

Ayam Pelung is a poultry breed from the Pelung region, Indonesia (hence its name). The fowl belongs to long-crowers. According to a popular myth, in 1850 H. Djarkasih, a local chicken hobbyist, religious teacher and farmer in Bunikasih Village, Indonesia, found a young male chick in his garden and raised it. The chick matured quickly and after some time turned up to be a rooster that uttered a long and melodious crow, praising the goodness of his attendant (https://en.wikipedia.org/wiki/Ayam_Pelung). The birds are known for the characteristic long-drawn-out crow of 30-60 seconds and a large size. A full-grown rooster may reach 6-8 kg (with a height of up to 50 cm) and a hen 5 kg. This makes them valued as good broiler chickens. Despite their relatively large weight, the birds have slender bodies and straight postures. The head is big with a massive, straight comb with evenly spaced serrations. The earlobes and the whole face are bright red. The wattles are relatively short but wide and oval in shape. The birds have a long, slender neck, with numerous feathers. Roosters are known for luxuriant hackles. The back is sloping down to tail and ends with abundant saddle feathers. Rooster's tail has short, distinctively crooked sickles (Phot. 2). Thighs are strongly muscled. Shanks are strong, thick and light grey, free of feathers.

Berat

Berat is a long-crowing breed originating in Albania and Yugoslavia. It is named for the city in Albania where it originated. It is a long-crower with a loud bass voice and a crow lasting up to 15-30 seconds. It must be pure white (Phot. 3), as no other colour variants are allowed. Berat chickens have straight, nearly upright postures. The line from beak to breast is regular, almost flat. The birds have a long neck and a rose comb. The face and earlobes are bright red. Wattles are short and broad. The breed is characterised by a squirrel-like tail, almost vertical to the back line, with short, strongly crooked sickles. Berat has long, thick, bright yellow shanks. The roosters weigh 3-3.5 kg and the hens 2-2.5 kg. The hens produce 80-100 white eggs per year, each weighing 55-55g (<http://www.feathersite.com/Poultry/CGA/Berat/BRKBerat.html>).



Phot. 1. Ayam Ketawa rooster
(https://en.wikipedia.org/wiki/Ayam_Ketawa)



Phot. 2. Ayam Pelung hens and rooster
(<https://cemanifarms.com/product/ayam-pelung/>)



Phot. 3. Berat hens and rooster
(https://commons.wikimedia.org/wiki/File:Bosnian_Crower_Berat_3.jpg)



Phot. 4. Couple of Phoenix chickens
(https://en.wikipedia.org/wiki/Phoenix_chicken)



Phot. 5. Mountain Crowing rooster and hens
(<https://pl.pinterest.com/pin/528821181226200025/>)



Phot. 6. Yurlov Crower roosters (<http://orgferma.ru/yurlovskaya-golosistaya/>)

Brazilian Crower

The original name of the breed is *galo musico*, freely translated as the singing chicken. *Galo musico* is the only long-crower originating in South America or, more specifically, Brazil. The crowing of roosters lasts from 12 to 25 seconds (<https://www.youtube.com/watch?v=nAh23Ua-onw>). Hens are considered to be good egg-layers, with the annual yield of 180 white eggs weighing 55 g. There are considerable phenotypical differences between individual representatives of the breed in terms of plumage colouring, which combines white, black and dark red in varying proportions. The Brazilian Crower has straight combs with a big body and deeply recessed regular serrations. Full-grown roosters weigh up to 2.5-3 kg and hens 2-2.5 kg. Brazilian crows live up to 8-10 years (<https://www.criatoriosouza.com.br/ovos-galados-galo-musico-brasileiro>).

Phoenix

Long-tailed fowl originating in Germany. The very first efforts to create Phoenix chickens were made towards the end of the 19th century by N.D. Wichmann, who succeeded in obtaining a chicken breed with long, cylindrical trunk and a long tail (Moszczyński, 2012). He crossbred the orange Onagadori with Old English Game. Although Phoenix fowl has inherited the continuous growth of tail sickles in roosters, the pace of their growth is much slower. The breed was first presented during the poultry show in Dresden in 1898. The birds have a small head with a bright red face. Their small, single combs are with well defined upright points. The wattles are small and rounded. The earlobes are oval and white. Irides in hens can be orange red to red. The trunk is very long and cylindrical, making the bird's body look slender and elegant. The neck in roosters is furnished with full hackle, with the thin, long feathers falling onto their shoulders. The breast is rounded, but must not be visible or strongly protruding. The wings should be carried close to the body. The birds have a narrow, long back with abundant saddle plumage falling onto the sides in roosters, with ends sometimes touching the ground (Phot. 4). In roosters, the tail has long sickles that grow throughout the life of the birds and in older specimens reach up to 3 meters in length. In hens, the rectrices are longer than in other breeds, but never as long as the sickles in males. The thighs are medium-sized and pronounced. The shanks are relatively short, grey, with a big spur in old birds (Jabłoński and Gorazdowski, 1999). The breed's weight is on average 2-2.5 kg for roosters and 1.5-2 kg for hens (Schmidt, 2007; Nowicki et al., 2010). The Phoenix hens are good layers of cream-coloured eggs (annual egg yield: 160) weighing 45 to 50 g. They have a strong brooding instinct and sit on the nests (Kruszewicz and Tarasewicz, 2002). Next to standard Phoenix breed, there is also a miniature form, with roosters weighing 0.8 and hen weighing 0.7 kg. The Phoenix chickens require specific breeding conditions, as the long rooster tail must be kept clean. The ground must be clean and the roosts need to be installed in such a way as to prevent sickle-end wiping against the wall, as in this way they get destroyed (Verhoef and Rijs, 2006).

Mountain Long-crower

This Germany-rooted long-crowing breed is now endangered with extinction due to the small size of the population and lack of interest in its breeding. The crow is long, from 15 to 20 seconds. Since 1884 the breed has been supervised by the Breeders Association which reports that there are currently 35 breeders of the Mountain Long-crower in Germany. As part of the initiative to protect old poultry breeds, a herd-book was established in 2015, aiming to maintain genetic diversity of as many pure-breed birds as possible. The above was important all the more that the breed has a long history, since, as stated by Schmidt (2007) the first mentions of its progenitors date back to the 12th century. Although the exact history of the breed's development is unknown, several sources indicate its genetic connotations with Turkish Long-crowers.

The birds are characterised by an original anatomy and plumage pattern. They have a medium-sized head with a straight, regularly serrated comb. The earlobes are white and the wattles are short and red. The neck is moderately long and somewhat retracted towards the tail at mid-length. The trunk

is long and barrel-shaped. The birds have a characteristic, arched back line with a protrusion at mid-length. The tail is carried at an angle of 45°. In hens, the tail resembles a folded handheld fan, while in roosters it has sparse thin, short sickles. Only one plumage colouring is recognised, gold-laced black (Phot. 5). Roosters weigh 3–3.5 kg and hens 2–2.5 kg (Schmidt, 2007). Hens lay about 120 white eggs per year, with an average weight of 55 g. In 1925 a miniature form of the breed was developed, a look-alike of the standard one, in which roosters weigh 1-1.1 and hens weigh 0.9 kg.

Yurlov Crows

A long-crowing breed from Russia, where it is also used as slaughter fowl due to the relatively large body weight. Yurlov Crows were first bred in Kursk, Orel and Voronezh regions. The breeders go to every effort to obtain a strong, clear voice in roosters with greatest length. The crowing of roosters lasts from 20 to 30 seconds. The breed was probably developed in the second half of the 19th century as a result of crossbreeding Asian Cochin chickens with gamefowl, including Malaya Game, and local Russian breeds. They inherited long shanks, an upright posture and musculature from the gamefowl and large body weight from Cochin chickens. Yurlov Crows have a relatively large and massive head with a straight comb. The face and the moderately long wattles are deep red. The neck is long and has a regular line. The breast is muscular but not very convex. The back regularly slopes down to tail. In roosters, the tail sickles are very short (Phot. 6), a trait inherited from gamefowl, next to short saddle feathers and long, thick yellow shanks. The standard rooster weighs about 4-6 kg and hen about 3.5-4 kg. The average annual egg production is about 150-160 cream-coloured eggs weighing 50-55 g (<http://geomedia.top/yurlovsky-chickens/>). The plumage is silver partridge or birchen.

Koeyoshi

The Koeyoshi originate from the northern districts of Japan and are an interesting breed that combines particulars of gamefowl once used for cockfighting with the equally unique feature of a long crow. The breed developed quite long ago, as the first mentions of these long-crowers come from the 17th century (Roszkowski and Wysocki, 2007). The breed's predecessor was Shamo, mated in the 18th century with Tomaru and Shokoku within the Akita, Aomori and Iwate prefectures (Łukasiewicz, 2009). The name, Koeyoshi, stands for 'good, long voice', which refers to the crowing of roosters, lasting up to 15 seconds (Schmidt, 2007). Koeyoshi is now considered a valuable show breed in Japan and across Asia, and an amateur breed in Europe, where it arrived only towards the end of the 1990s (Roszkowski and Wysocki, 2007). Despite the extensive area where the birds can be found, their population is sparse. The head is broad and moderately long, with small eyebrows above the eyes. Koeyoshi have a pea comb, the top of which is slightly elevated. The earlobes are long and red, with a small white extension in the upper corner. The wattles are small, red and heavily wrinkled and expand upwards. The birds are also distinguished by their bare dewlap, i.e. featherless and wrinkled skin at the height of the voicebox. The most characteristic features of Koeyoshi include: long crowing, muscular but slender body and level back with the backline sloping to tail. Their shoulders are broad and massive. The wings adhere flatly to the trunk. The breast is broad and long, with fleshy sternum, a distinctive mark of the breed's purity. The thighs are muscular and strong, the shanks are yellow with numerous pronounced scales and prominent spurs. The tail resembles a handheld fan. Roosters have narrow, long sickles that oftentimes almost touch the ground. Only one colour plumage, silver partridge, is accepted. The roosters weigh 4-4.5 kg and the hens 3-3.75 kg. Hens lay about 60-80 tinted eggs per season, with an average weight of 45 g.

Kosova

Kosova originates in the former Yugoslavia or, more specifically, today's Drenica province in Kosovo. Until recently, the breed was not widely kept in Europe, but the situation has changed lately, as a result of which there are also several breeders in Poland. Kosova is a long-crower. The crow averages 20-40 seconds, and exceptional roosters will go on for 60 seconds. The birds' colour is exclusively black, with a few red or gold feathers that might appear on roosters' wings. In most cases their

crests are composed of a bunch of long, narrow, somewhat straggly feathers, (Phot. 7) which, however, are stretched stiffly upwards and do not obstruct the field of vision. The face, earlobes and elliptical wattles are bright red. The neck is symmetrical and relatively long with a regular line. It gently slopes to the back line and further to the tail. Rooster's tail has short, sword-shaped sickles. The shanks are moderately long and yellow. An adult rooster weighs from 2.2 to 2.5 kg, while hen's weight varies from 1.5 to 2 kg. Hens are good layers and lay about 160 white eggs per year, with an average weight of 55 -60 g. Kosova hens do not lay eggs until their seventh or eighth month. (https://en.wikipedia.org/wiki/Kosovo_Longcrower).

Kurokashiva (Kurogashiva)

The breed was developed in North Central Japan. Kurokashiva are both long-tails and long-crowers. Since Tomaru chickens participated in Kurokashiva development, there is certain resemblance between these two breeds. Kurokashivas are rarely met in Europe, as their population here is sparse. The first specimens were brought to Germany towards the end of the 20th century by Knut Roeder (www.longtail-fowl.com/kurogashiva.html). The birds have a proportional, slender head and a relatively long neck that slopes gently towards the back. The comb is single, medium-sized, twice smaller in hens than in roosters. The wattles are short, oval and bright red (although darker spots are acceptable, both in wattles and in the face), especially in hens (Phot. 8). Sickles on the rooster's tail are quite broad and long. Tails in specimens aged 4-5 years may reach 130 cm in length. In hens, the tail has large rectrices and resembles a folded handfan. The shanks are featherless, light grey. The only accepted colour variant is black. Full-grown roosters weigh up to 1.8-2.3 kg but hens 1.3 - 1.8 kg. The average annual egg production is about 80-110 cream-coloured eggs weighing 45-50 g (<https://prokur.ru/kurokashiva-poroda-kur/>).

Minohiki

A long-tailed breed from Japan. The currently known type of the breed crystallised in the 1850s. In 1940 in Japan, where the breed is particularly popular and renowned, Minohiki were officially announced an important element of the country's culture and entered into the list of Living Natural Monuments. The birds' characteristic features include long saddle feathers in roosters on both sides, sometimes slightly curled, with ends touching the ground. Sickles in males are markedly longer and curved, and may reach 1 m in older specimens. In Japanese, the name is a combination of two words referring to the specific features of the birds' tail: *mino* stands for a cloak made of rice straw while *hiki* means to stretch, a reflection of saddle and tail feathers stretching along the ground (Roszkowski and Wysocki, 2007). As pointed by Kurspiot and Roszkowski (2015), the feature fully reveals in roosters in the 3rd or 4th year of life, making the breeding efforts difficult. The breed's been enjoying growing popularity in Europe, including Poland (since 2005). Minohiki are light chickens, with males weighing 2.2-5 and females weighing 1.5-2 kg. They have a small, slender head with intensely red wrinkled skin on the face. The earlobes are small and bloodred. The birds have a pea comb and a long, slender neck. The breast is broad and deep. The back line regularly slopes down to tail, which is carried at an angle of 15–20° (Kurspiot and Roszkowski, 2015). With the long and abundant tail feathers, the birds' trunk seems much longer than it actually is (Phot. 9). The shanks are straw-coloured. As the chickens have a number of primitive features, they manage to thrive in demanding conditions. They are very active by nature and therefore need larger runs that give them the appropriate amount of movement and allow them to express their natural behaviours. On areas that are not big enough, especially if the density of birds within an area is too big, they may show pterophagic or cannibalistic tendencies, as they have many characteristics of gamefowl. Hens tend to peck and destroy males' ornamental feathers, thus marring their appearance and making them unfit for exhibitions. As stated by Kurspiot and Roszkowski (2015), a good solution to this problem may be to keep males separately out of the breeding season and thus prevent pterophagy.



Phot. 7. Kosovo Longcrowing rooster
(https://en.wikipedia.org/wiki/Kosovo_Longcrowing)



Phot. 8. Kurokashiva rooster and hens
(<https://pro-kur.ru/kurokashiva-poroda-kur/>)



Phot. 9. Minohiki rooster
(<http://www.serama-hodowla-drobiu-ozdobnego.pl/?minohiki,49>)



Phot. 10. Onagadori rooster
(<https://pethelpful.com/farm-pets/12-Utterly-Bizarre-Chicken-Breeds>)



Phot. 11. Shokoku rooster
(<https://www.domesticforest.com/shoukoku-chicken/>)



Phot. 12. Tomaru rooster
(<https://greenfirefarms.com/tomaru.html>)

Ohiki

Ohiki is a Japanese long-tailed breed, also categorised as a true bantam breed due to its small body size (Jakubowska and Różewicz, 2017). The name, Ohiki, is freely translated as a 'dragged behind tail, which is only true for roosters. The breed is relatively old, as it dates back to the final years of the Edo period (1603-1868), and is considered an element of the Japanese heritage. In 1947, Ohiki was listed among Living Natural Monuments of the country. The birds have a stocky body and short shanks. The front is slightly elevated. The tail's length reaches 50-60 cm, making the birds look proportional (Jakubowska and Różewicz, 2017).

Onagadori

Onagadori is a Japanese long-tail and one of the oldest ornamental chickens. The history of its breeding dates back to almost one thousand years ago, although no precise date is provided in historical sources. The roosters have extra-long tails. Sickles on the tail and a portion of saddle feathers do not moult, which distinguishes the breed from the vast majority of other chickens. These feathers grow throughout the life of the birds, by 70-80 cm annually. The oldest specimens have the longest tails, which can be even 13-meter long. What is interesting, the hens have sickles too. The extraordinary tail growth is influenced by the gene 'gt', which causes the non-moult of saddle feathers and tail sickles (Kruszewicz and Tarasewicz, 2002; Roszkowski and Wysocki, 2007). To fully present the breed's assets during shows, Onagadori roosters are exhibited differently than other breeds. While most birds are usually put in cages, Onagadori are placed on high perches in order to let their tails be seen in all their glory. As breeding efforts are targeted mainly at obtaining maximum tail length, it is usually roosters older than 3 years of age that are intended for breeding. On the other hand, the long tail may hinder copulation, which is certainly a complicating factor. Therefore, breeders tend to use younger specimens for this purpose, with a good pedigree chart and predecessors with exceptionally long tail sickles. The breed requires a lot of dedication and patience from the breeders. The breeding is difficult and time-consuming and needs utmost involvement, also in financial terms, as building the appropriate facilities and maintenance of the birds are costly. The breed used to be kept exclusively by Japanese social elites, including the emperor. In the times of Samurai, they were worshipped and under special care (Roszkowski and Wysocki, 2007), with their long sickles having been used as ornaments. Later, the interest in the breed abated so much that a Longtailer Protection Society was established in 1908. In 1923, the breed was ensured legal protection through a decree of the Japanese government and then by a decree prohibiting the sales and slaughter of Onagadori chickens (1952) (Kruszewicz and Tarasewicz, 2002). Currently the breed is still covered by special protection in Japan, but it is no long-

er so restrictive. Research on genetic diversity within the breed is in progress. Tadano et al. (2009) point to the marked genetic differences between the original white Onagadori and the coloured variants, a fact which they link to cross-breeding Onagadori with other chicken breeds in order to obtain new colour variants. The authors thus suggest that coloured variants should be treated as separate stocks within the breed in the gene resources conservation programme. It is of utmost importance to maintain genetic variability of economically important animal species, which domesticated fowl is. As stated by Goto et al. (2015), Onagadori has unique genes with a potential to use in the future. In their opinion, the breed may also have other valuable genes conditioning the birds' performance traits (like Leghorn chickens). The temperament of the breed is calm and balanced, which makes it win over breeders' hearts. The birds are easily tamed and come into close contact with breeders, allowing the attendants to feed them directly from the hand. Except for the long tail, they resemble light chickens. Their head is proportional with a big straight comb with evenly spaced serrations. The earlobes are white and oval. The back regularly slopes down to tail. The breast is slightly protruding. The shanks are smooth and yellow. The original white variant is the most popular, but other colours are also accepted. These include silver-duckwing (Phot. 10), golden-duckwing and partridge. An adult rooster weighs up to 1.8 kg and a hen up to 1.3 kg. Hens lay 100-120 white eggs weighing 40 g (Roszkowski and Wysocki, 2007). The breed is mated through hand-mating. This means that the hen is taken to the rooster's aviary and stays there until copulation, whereupon the birds are separated again (Knaga i Kasperek, 2014).

Shoukoku

Shoukoku chickens probably originate in China, from where they were taken to Japan during the Heian period (794-1185). The name of the breed means a city or state (Roszkowski and Wysocki, 2007). Originally, the birds were used as gamefowl for cockfighting. Due to the lasting selection aimed at obtaining long tails, they have lost their combative temperament. Shoukoku is said to have a long crow, but not to rival other breeds described in this study, as the crow lasts up to 10 s. The birds have a relatively small head, with a straight, medium-sized crow with five evenly spaced serrations. The neck is long and slender, with narrow, elongated hackle feathers that fall onto the birds' shoulders. The breast is prominent, thrown out with pride and slightly elevated. The backline falls gently to the lowly-set tail, making the birds' body look harmonious. Tail feathers, i.e. rectrices and sickles, grow more slowly than in Onagadori. Roosters' saddle feathers should be long and touch the ground (Phot. 11). The shanks are yellow and moderately long. This breed only occurs in silver-partridge, white and gairo (multi-colour), although the latter two are fairly uncommon.

Tomaru

Tomaru is said to have been brought to Japan from China (Schmidt, 2007). It is a breed of long-crowing chicken with the strongest voice timbre and a crow lasting up to 23 seconds (Łukasiewicz, 2009). The first specimens appeared in Europe in 1984. Tomaru's body is slightly rounded, a feature additionally highlighted by the full breast slightly cut away at front. The head is medium-sized, with a straight comb. The comb, wattles and face are bluish red (Phot. 12) or mulberry (Schmidt, 2007). The neck is moderately long, stocky and slightly retracted at mid-length towards the tail. The back is long and sloping down to tail. The body is strong, compact and moderately long. It appears in a single variety with black plumage and feathers with opalescent metal green shimmer. An adult rooster weighs from 2.5 to 3.5 kg, while hen's weight varies from 2.0 to 2.8 kg. In their homeland, the birds make an important element of the cultural heritage, which is confirmed by the breed's entry into the list of Living Natural Monuments.

Totenko

Totenko combines the features of the two groups of ornamental chickens described in this study, as it has both a long tail and a long crow. In Polish, Totenko means 'a rooster that sings when the sunrise sky is red' (Roszkowski and Wysocki, 2007). Łukasiewicz, however, proposes a different

translation of the name, 'a rising sky'. The crow of a Totenko rooster may last up to 15-20 seconds. As stated by the author, the breed's origin and contribution of other chicken breeds in its development remain unclear. Totenko chickens were first brought to Europe in 1989 (Schmidt, 2007). They have a relatively large head with a single comb with five serrations. The wattles are red and rounded. Earlobes are big, rounded and pure white. Irides are coloured red to amber. The neck is long and slightly curved. The breast is full and prominent. The moderately long back is sloping down to tail. The sickles are very long and distinctively curved (Phot. 13). In older roosters, aged 2 or 3 years, the tail may reach over 1 meter in length. The shanks are moderately long and have yellow grey colour. An adult rooster weighs from 1.8 to 2.3, while hen's weight varies from 1.3 to 1.8 kg.

Conclusions

The study presents an overview of sixteen long-crowing and long-tailed chicken breeds. With their very specific features, the birds' role is exclusively ornamental. The breeds described make an important element of the genetic biodiversity of domesticated fowl and of the centuries-old breeding tradition. They originate in different countries, mostly in Asia. The study, however, also presents several breeds native to Europe and one native to South America. As a result of the growing popularity of breeding ornamental chickens in Europe, including Poland, exotic breeds are imported and exhibited. The birds often require very specific breeding conditions as well as knowledge of their needs and accepted anatomical features, features that have been exhaustively presented in this study.

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LONG-CROWING AND LONG-TAILED CHICKENS – CHARACTERISTICS OF THE BREEDS

Summary

Long-crowing and long-tailed breeds of hens are a special group that has no utility meaning, only a ornamental aspect. However, they enjoy recognition among enthusiasts of ornamental poultry farming. Thanks to this, these breeds have survived, are part of the culture of many nations, and an important element of genetic biodiversity of the species. This study characterizes sixteen breeds of hens from Asia and Europe, and one from South America. Their history was discussed alongside the origin and characteristics of the body structure.

Key words: Long-crowing, long-tailed, ornamental chicken breed, rare breed, chicken biodiversity



Fhot. 13. Totenko rooster with hens
(<https://www.holidaycheck.de/hm/bilder-videos-ferienbauernhof>)