

= Rodrigues rail =

The Rodrigues rail or Leguat 's gelinote ( *Erythromachus leguati* ) is an extinct , flightless rail that was endemic to the Mascarene island of Rodrigues , east of Madagascar in the Indian Ocean . It was described as having grey plumage , a red beak , red legs , and a naked red patch around the eye . The beak varied between specimens from straight to curved , but the reason for this is unknown .

It is sometimes assigned to the genus *Aphanapteryx* , along with its close relative the red rail ( *A. bonasia* ) of Mauritius , but they are commonly kept separate . Its relationship with other rails is unclear . It was described as being attracted to red objects , which humans exploited while hunting it .

The Rodrigues rail is believed to have become extinct in the mid @-@ 18th century because of destruction of its habitat and predation by humans and introduced animals . Apart from information gathered from subfossil bones , the bird is poorly understood and is only known from two contemporaneous descriptions , and there are no extant illustrations of it . The bird was first described by François Leguat , a French Huguenot refugee marooned on Rodrigues in 1691 , and was named *leguati* in his honour . The second description is by Julien Tafforet , also marooned on the island in 1726 . Subfossil remains were first described and connected with the extant descriptions in 1874 .

= = Taxonomy = =

In 1848 , Hugh Strickland wrote that a bird similar to the red rail ( *Aphanapteryx bonasia* ) of Mauritius was mentioned in François Leguat 's memoirs , but was unable to classify it further because of a lack of remains . He wrote that it may have been a grouse or gallinaceous bird . In 1874 , Alphonse Milne @-@ Edwards connected Leguat 's and Tafforet 's descriptions with some bones found in a cave on Rodrigues , and recognised their similarity to those of the red rail . Milne @-@ Edwards coined the generic name *Erythromachus* from the Greek words for " red " and " battle " , in reference to its behaviour towards red objects , and the specific name is in honour of Leguat . The junior synonym *Miserythrus* , from " red " and " hatred " , was coined by Alfred Newton in 1893 , also referring to this behaviour . James Greenway wrote that Leguat 's description referred to wind @-@ blown purple swamphen . This has not been accepted by other authors . More remains were found in 1974 .

Unlike the red rail and other extinct Mascarene birds , the Rodrigues rail was not illustrated by contemporaneous artists . Ornithologist Storrs L. Olson described reconstructions made for Walter Rothschild 's 1907 book *Extinct Birds* and Masauji Hachusika 's *The Dodo and Kindred Birds* ( 1953 ) as " rather fanciful " . Frederick William Frohawk based his restoration in the former book on an outline sketch , which was in turn based on a 17th @-@ century sketch drawn by Sir Thomas Herbert , which is now known to depict the red rail . Hermann Schlegel thought it depicted a species of dodo ( *Didus herbertii* ) from Rodrigues when he drew the outline in 1854 , and that it was the species mentioned by Leguat .

= = = Evolution = = =

Apart from being a close relative to the red rail , the relationships of the Rodrigues rail are uncertain and the two are commonly listed as separate genera , *Aphanapteryx* and *Erythromachus* , but have sometimes been united as species of *Aphanapteryx* . Edward Newton and Albert Günther first generically synonymised them in 1879 because of their skeletal similarities . It has been suggested that because of these species ' geographic locations and the morphology of the nasal bones , they may have been related to the genera *Gallirallus* , *Dryolimnas* , *Atlantisia* , and *Rallus* . Rails have reached many oceanic archipelagos , which has frequently lead to speciation and the evolution of flightlessness . These rails may be of Asian origins , like many other Mascarene birds .

## = = Description = =

The Rodrigues rail was a plump , flightless rail with bright grey plumage , perhaps flecked with white , and it had a red bill and legs , and a red , naked area around its eyes . It was somewhat smaller than its closest relative , the red rail . The bird 's exact length is unknown , but it was about the size of a chicken . The strong bill varied greatly in size and shape ; some specimens had short and almost straight bills , and others had much longer bills that were prominently curved . It is unknown whether this was related to sexual dimorphism or to individual variation . Its cranium was 38 millimetres ( 1 .5 in ) long by 20 millimetres ( 0 .79 in ) wide , and the bill was 77 millimetres ( 3 .0 in ) long . The pelvis was large and strongly built in proportion to the size of the bird .

The Rodrigues rail had somewhat larger wings than the red rail , but the species ' leg proportions , pelvis and sacrum was also similar . It also had a proportionately longer humerus , a broader and shorter skull , and having longer and lower nostrils from the red rail , from which it differed considerably in plumage , based on early descriptions .

## = = Contemporary accounts = =

The Rodrigues rail was first recorded by François Leguat in his 1708 memoir , *A New Voyage to the East Indies* . Leguat was the leader of a group of nine French Huguenot refugees ; the group were the first to colonise Rodrigues from 1691 to 1693 , after they were marooned there by their captain . Leguat 's observations are considered some of the first cohesive accounts of animal behaviour in the wild .

Leguat 's full account of the bird reads as follows :

Our ' gelinotes ' [ hens ] are fat all the year round and of a most delicate taste . Their colour is always of a bright grey , and there is very little difference in plumage between the two sexes . They hide their nests so well that we could not find them out , and consequently did not taste their eggs . They have a red naked area round their eyes , their beaks are straight and pointed , near two and two - fifths inches long , and red also . They cannot fly , their fat makes them too heavy for it . If you offer them anything red , they are so angry they will fly at you to catch it out of your hand , and in the heat of the combat we had an opportunity to take them with ease .

Another description of appearance and behaviour is found in an anonymous document called *Relation de l 'Ile Rodrigue* , which was rediscovered in 1874 and has been attributed to Julien Tafforet , who was marooned on Rodrigues in 1726 :

There is a sort of bird , of the size of a young hen , which has the beak and feet red . Its beak is a little like that of a curlew , excepting that it is slightly thicker and not quite so long . Its plumage is spotted with white and grey . They generally feed on the eggs of the land tortoises , which they find in the ground , which makes them so fat that they often have difficulty running . They are very good to eat , and their fat is of a yellowish red , which is excellent for pains . They have small pinions [ wings ] , without feathers , on which account they cannot fly ; but on the other hand , they run very well . Their cry is a continual whistling . When they see any one who pursues them they produce another sort of noise , like that of a person who has hiccups .

## = = Behaviour and ecology = =

The Rodrigues rail ate invertebrates , possibly small vertebrates , and in the nesting season of the now extinct *Cylindraspis* tortoises , they dug up and fattened themselves on their eggs . It is possible that the birds had an annual cycle of becoming fat and slim , corresponding with varying availability of food throughout the year . Its vocalizations were a continuous whistling , and it had a hiccup @-@ like , staccato alarm call . Leguat wrote that the birds were hunted in similar method to that used on Mauritius to catch red rails : a piece of red cloth was shown to the birds , which responded with aggressive behaviour , jumping at the cloth and trying to tear it apart . They no fear of humans because they had evolved in the absence of predators , enabling hunters to catch them

in large numbers . Neither Leguat or Tafforet located the eggs and nests of the birds .

Many other species endemic to Rodrigues became extinct after humans arrived , and the island 's ecosystem is heavily damaged . Before humans arrived , forests covered the island entirely , but very little remains today . The Rodrigues rail lived alongside other recently extinct birds , such as the Rodrigues solitaire , the Rodrigues parrot , Newton 's parakeet , the Rodrigues starling , the Rodrigues owl , the Rodrigues night heron , and the Rodrigues pigeon . Extinct reptiles include the domed Rodrigues giant tortoise , the saddle @-@ backed Rodrigues giant tortoise , and the Rodrigues day gecko .

= = Extinction = =

The disappearance of the Rodrigues rail coincided with the tortoise trade between 1730 and 1750 ; traders burnt vegetation , hunted birds , and imported cats and pigs which preyed on eggs and chicks . The fat of birds that had been feeding on tortoise eggs was bright orange and was used as a remedy for people recovering from illness . Although the Rodrigues rail survived predation by rats that were accidentally introduced in the late 17th century and had multiplied by the time of Leguat 's visit , it was unable to withstand persecution by humans . Alexandre Guy Pingré wrote in his 1763 report that the bird was extinct by 1761 .