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NOTES ON SOME GENERA FROM THE SOUTHWEST PACIFIC

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During an examination of the birds of the southwest Pacific, which was made in the course of the preparation of a handbook on the birds of that area, I came across some genera, mostly monotypic, the validity of which seemed doubtful to me. I undertook, therefore, a thorough revision of the taxonomic characters of these genera and found that 13 of them are not sufficiently distinct to deserve recognition: *Coryphoenas*, *Urodynamis*, *Microdynamis*, *Pyrrholaux*, *Mochthopoeus*, *Cryptigata*, *Malacolestes*, *Myiolestes*, *Meliphacator*, *Amoromyza*, *Kubaryum*, *Megazosterops*, and *Rhamphozosterops*. The detailed evidence for this conclusion is presented on the following pages.

CORYPHOENAS RAMSAY

In the Ibis (1890, p. 246) R. G. Wardlaw Ramsay proposed the genus *Coryphoenas* for a Solomon Islands pigeon, previously known as *Turacoena crassirostris* Gould. Ramsay showed correctly that the species is not a *Turacoena* nor too close to *Macropygia*. This had already been demonstrated on anatomical grounds by Haswell (1883, Proc. Linn. Soc. New South Wales, vol. 7, p. 116). Ramsay, however, overlooked the fact that Salvadori had already removed *crassirostris* from *Turacoena* and placed it in *Reinwardtoena*, where it is indeed well placed. *R. crassirostris* agrees very well in general coloration, proportions, and shape of the bill with *R. browni*, differing only by having the bill slightly heavier. The habits of *R. crassirostris* are typically those of a *Reinwardtoena*. The species is obviously the Solomon Islands representative of the Bismarck Archipelago *R. browni*, and the slight differences are by no means

sufficient to justify the recognition of the monotypic genus *Coryphoenas*, which must be considered a synonym of *Reinwardtoena*.

URODYNAMIS SALVADORI AND MICRODYNAMIS SALVADORI

Around 1876, eight species were included in *Eudynamis* (*parva*, *honorata* [= *scolopacea*], *mindanensis*, *orientalis*, *cyanocephalae*, *rufiventer*, *melanorhyncha*, and *tailensis*). Salvadori realized that this was a somewhat heterogeneous assemblage and erected in 1878 the genus *Microdynamis* for *parva* and in 1880 the genus *Urodynamis* for *tailensis*. The changed species concept, which has been adopted by ornithologists during the past 40 years, finally led Hartert to combine all the remaining "species" of *Eudynamis* into a single one (*scolopacea*). Peters in his "Check-list of birds" (1940, vol. 4, p. 37-39) and other authors recognize 19 subspecies in this species. Thus, the genus of 1876 with eight species has been replaced by three monotypic genera. The question is pertinent whether or not the three species are really different enough to justify the recognition of three separate genera.

Urodynamis was separated by Salvadori from *Eudynamis* on the basis of its longer and more wedge-shaped tail, on its color pattern, and absence of sexual dimorphism. The only generic characters of *Microdynamis* mentioned by its describer are its "small size and remarkable plumage coloration." An inquiry into the validity of these so-called genera requires an analysis of their generic characters. In this connection it becomes at once obvious that *parva* is the most primitive or least-specialized species, *scolopacea* is intermediate,

and *tailensis* is most specialized (except for coloration).

SIZE AND PROPORTIONS: *E. parva* is the smallest species (wing, male, 103–110, female, 97–107), *tailensis* is larger (wing, male, 186–192, female, 175–185), *scolopacea* is largest and quite variable in its various races (wing, about 175–226). The true size is brought out even better by a comparison of the weights. They are as follows (in grams): *parva* 54 (male adult); *tailensis*, male, 118, female, 118, 122; *scolopacea alberti*, male, 143, female, 149, 177, 184. The large *scolopacea cyanocephala* is undoubtedly even heavier. However, *tailensis*, though smaller than *scolopacea*, has relatively longer wings and tail. The relative tail length of the three species is as follows: *parva*, male, 83.5–94.5 (89.3), female, 83.3–89.5 (85.5); *scolopacea* (variable), 88–102; *tailensis*, 120 per cent (of wing) or more. This elongation of the tail of *tailensis* is primarily one of the central tail feathers. The outermost tail feather is about 77 per cent of the wing length, exactly as in *scolopacea*. This unequal elongation is the cause of the strongly graduated tail of *tailensis*. In regard to the graduation of the tail, the three species form a series. In *parva* the outermost tail feather is 91–95 per cent of the length of the central tail feather, in *scolopacea* 74–83 per cent, and in *tailensis* 61–64 per cent. An exactly parallel lengthening of the distance between the longest and the shortest feather occurs in the wing. The tenth primary is 79–82 per cent of the length of the longest primary in *parva*, 69–77 per cent in *scolopacea*, and only 56 per cent in *tailensis*. In other words, the wing tip lengthens from about 20 per cent of the total wing length in *parva* to 44 per cent in the strongly migratory *tailensis*.

COLOR PATTERN: Sexual dimorphism is absent in *tailensis*, but present in *parva* and *scolopacea*. The female of *parva* is very plainly colored, brownish gray with a faint indication of barring underneath. The male has a black cap with blue gloss, followed by two lines along the sides of the face, a whitish buff one and a blue-black line. The identical color pattern is found in females of *melanorhyncha* and other races

of *scolopacea*. The adult male of *scolopacea* is always blue-black, but females are extremely variable; they are nearly always prominently spotted or barred. Very important is the fact that in most races some females are more hen feathered, others more masculine (Mayr, 1944, Bull. Amer. Mus. Nat. Hist., vol. 83, p. 150). This tendency has reached its culmination in *melanorhyncha*, where some of the females are all black with a blue-green gloss, almost exactly like the males, while other females are spotted and barred, like the typical females of the other races (Stresemann, 1940, Jour. Ornith., vol. 88, p. 455). Some females of this race are thus cock feathered. The opposite condition occurs in *tailensis* in which males are always hen feathered. This is not necessarily a primitive condition. In fact, all the evidence indicates that the loss of the typical male plumage of this species is a secondary development. It is observed in many island races or species, as in *Lalage sharpei*, *Pachycephala pectoralis*, *Petroica multicolor*, where it can be shown conclusively that the loss of the male nuptial plumage in certain island races is a secondary condition. On the other hand, the streaked pattern of *tailensis* is definitely an evolutionary novelty. It is not found in *E. parva* or in any of the races of *scolopacea*.

CONCLUSIONS: The above discussion gives the facts on which to base conclusions on the validity of the genera *Microdynamis* and *Urodynamis*. To begin with, there is no doubt that the three species *parva*, *scolopacea*, and *tailensis* differ from one another in size, proportions, and color pattern. The problem thus is reduced to the question as to whether or not these differences are sufficient to justify the recognition of three monotypic genera. Size cannot be considered a generic character, particularly in view of the strong geographic variation of size in the species *scolopacea*. The shape of the wing is almost identical in *parva* and *scolopacea*. It is $4 > 3 > 5 > 6 > 7 > 2 > 8 > 9 > 10 > 1$ in *parva* and may be the same in *scolopacea*. Other formulas in various races of *scolopacea* are: $4 > 3 = 5 > 6 > 7 > 2 > 8$ or $3 > 4 > 5 > 2 > 6 > 7 > 8$. In other words, the first pri-

mary is always shorter than any other, the second primary may be shorter or longer than the seventh and eighth, and either the third or the fourth primary is the longest feather of the wing. Even though the shape of the wing is nearly identical, *scolopacea* has a somewhat more pointed wing as shown by its longer wing tip (see above). In the migratory *tailensis*, the wing is even more pointed. Not only is the wing tip much longer, but also the wing formula is changed. The second primary is always longer than the seventh, and the first longer than the ninth and tenth. The wing formula is thus: $3 > 4 > 5 > 6 > 2 > 7 > 8 > 1 > 9 > 10$. A similar elongation of the wing has been described in other cases as a difference between migratory and sedentary races of a single species. Such a character surely cannot be raised to the rank of a valid generic criterion. The same is true for the striking difference in tail length. Huxley has shown (1932, "Problems of relative growth") that a small change in a growth factor can produce very striking differences in the ultimate form of an organ. The differences in shape of wing and tail among *parva*, *scolopacea*, and *tailensis* fit in excellently with other similar cases, illustrated by Huxley. The low taxonomic value of such changes of form become obvious where they occur in geographical races of the same species or in geographically representative species of the same superspecies. Stresemann (1925, Jour. Ornith., vol. 73, p. 152) has shown this for races of the starling *Lamprocolius chloropterus* and of the bird of paradise *Paradigalla carunculata*, and Stonor (1938, Proc. Zool. Soc. London, ser. B, vol. 108, p. 440) for *Astrapia* and other birds of paradise. (For a map of the representative *Astrapia* species, see Mayr, 1942, "Systematics and the origin of species," fig. 24, p. 230.)

It seems to me that the differences between *parva*, *scolopacea*, and *tailensis* are merely variations of the same basic features, such as have been found in other cases within geographically variable species. They are not fundamental enough to justify the recognition of three monotypic genera. This conclusion remains valid, even if it should become necessary to split

scolopacea into several species in case some of its "races" have partly overlapping ranges.

PYRRHOGLAUX YAMASHINA

On the Palau Islands lives a small owl (*podarginus* Hartlaub and Finsch), which was originally described in the genus *Noc-tua*, but which has been considered a scops owl (genus *Otus*) by the majority of recent authors. In 1938 Yamashina established a new genus *Pyrrhoglaux* for this species (Tori, vol. 10, no. 46). In the diagnosis the following striking differences (compared with *Otus*) are listed: "Small owl without ear-tufts. Facial disks are very much reduced, only the feathers of lores disposing radially. Wings are much rounded, fifth and sixth primaries almost equal in length are the longest. Only ten rectrices [as against 12 in other owls] . . . Tarsi bare, excepting some feathers growing along the upper half of the front. Toes completely bare from either feathers or bristles."

This impressive list of generic differences convinced Peters of the validity of *Pyrrhoglaux*, and he accepted this genus in volume 4 of his "Check-list" (p. 109). However, the first time I handled specimens of this species I was struck by its resemblance to *Otus spilocephalus*. Should *podarginus* be merely an aberrant island representative of *spilocephalus*? This question can be answered only by a minute comparison of the two species. The feathers on the sides of the occiput do not form distinct ear tufts in *podarginus*, but in *spilocephalus* also these feathers are much less elongated, as compared to *Otus scops* or other *Otus*. The reduction of the length of the ears is apparently only part of the reduction of the feathering of the entire plumage. It is apparent in the facial disk, although a study of Mr. Coultas' well-made skins reveals that it is not so far reduced as stated by Yamashina. The toes of both *podarginus* and *spilocephalus* are unfeathered, and in *spilocephalus* the lowest third of the posterior part of the tarsus is also bare. This reduction of the feathering of the tarsus has progressed in *podarginus* in which the lower third of the tarsus is en-

tirely bare, even in front. In this development *spilocephalus* (and *podarginus*) are an exact parallel to the tropical races of *Otus scops* in which also the lower third or quarter of the tarsus is bare (Delacour, 1941, Zoologica, New York, vol. 26, p. 138).

That the shape of the wing of scops owls is subject to strong geographical variation was also pointed out by Delacour (*loc. cit.*). In *spilocephalus* the wing tip is formed by primaries 4, 5, and 6, all three being subequal, with 5 being slightly longer, even in *podarginus*, not 6 as stated by Yamashina. Primaries 3 and 7 are next in length and about subequal. The greatest variation occurs in regard to primary 2, which may be longer than 8 in *latouchi*, is larger than 9 in *spilocephalus*, *alfredi*, and in some specimens of *podarginus*, and is shorter than 10 in some specimens of *podarginus* and in *luciae*. The Kina Balu race *spilocephalus luciae* has the most rounded wing, with a formula $5 = 6 > 7 > 4 > 8 = 3 > 9 > 10 > 2 > 1$. There is more variability in *podarginus*. The wing may be as round as $5 = 4 = 6 > 7 > 3 > 8 > 9 > 10 > 2 > 1$ or as pointed as $5 > 4 > 6 > 3 > 7 > 8 > 2 = 9 > 10 > 1$. This corresponds almost entirely to the normal wing of *spilocephalus*, $5 > 4 > 6 > 3 > 7 > 8 > 2 > 9 > 10 > 1$. Obviously, there is nothing in the wing formula of *podarginus* that would justify its generic or even specific separation from *spilocephalus*. The Kina Balu subspecies *luciae* has an even more rounded wing.

This leaves the number of tail feathers to be discussed. It is 12 in *spilocephalus*, *latouchi*, and *vulpes*. Of three specimens of *alfredi* one has 12 tail feathers, the other two only 10. All three specimens of *luciae* examined by me have only 10 tail feathers, so have all the specimens of *podarginus*.

This evidence can be summarized as follows: all the characters of *podarginus* on which its generic separation was based are subject to geographical variation in the genus *Otus* and in particular in *Otus spilocephalus*, the nearest relative of *podarginus*. Furthermore, all the characters listed by Yamashina are merely expressions of a single tendency, namely, a reduction of feathering. To put it in every-day lan-

guage, *Otus spilocephalus*, which is a mountain bird over most of its range, found its subtropical "fur coat" too hot, after it had settled in the hot lowlands of tropical Palau, and shed it. It may be going too far to include *podarginus* in the species *spilocephalus*, but there is certainly no excuse for separating it generically. The reduction of the feathering in *luciae* (Borneo) was noted by Sharpe 50 years ago and caused him to separate this form generically as *Heteroscops* (1889, Ibis, p. 77). The very same reasons that induced subsequent authors to reject *Heteroscops* are valid against the recognition of *Pyrrhoglaux*.

MOCHTHOPOEUS HARTERT AND CRYPTIGATA MATHEWS

In October, 1927, the Whitney Expedition discovered a new leaf warbler in the mountains of Kulambangra, Solomon Islands, which was subsequently described by Hartert as a new species and genus *Mochthopoeus amoenus* (1929, Amer. Mus. Novitates, no. 364, p. 12). The species *amoenus* is so similar to *Phylloscopus trivirgatus* in every respect that it is a little hard to understand how anyone with as sane a concept of the genus as Hartert could have made it the type of a separate genus. It differs from *becki* and the other Solomon Islands forms of *Phylloscopus* by its much darker color, by having a bigger and broader bill, and by its shorter tail. In these respects *amoenus* is merely a super-"*Cryptigata*." However, I have shown (1944, Bull. Amer. Mus. Nat. Hist., vol. 83, pp. 158-159) that the characters of the so-called "genus" *Cryptigata* are nothing but the reactions of *Phylloscopus* to a sedentary life in the humid tropics. It results in softer plumage, rounder wing, and shorter tail, and longer and stronger body appendages (bill, bristles, legs, toes, and claws). These characters are not only correlated directly with the tropical environment, but, at least to some extent, with one another. Furthermore, these characters are subject to geographical variation, as I have shown (*loc. cit.*). They cannot be used as specific criteria, much less as generic ones.

The length of the tail of *amoenus* is 66.3,

67.2, 67.8 per cent of that of the wing. In *Phylloscopus (trivirgatus) becki* it is: male, 73.5, 75.7, 76.7, 79.3 (Guadalcanal), male, 71.8, 73.3, 75.4 (Malaita), female, 70.4, 71.7, 72.3 per cent (Malaita). In *bougainvillei* it is: male, 71.4, 71.5, 71.5, 72.4, 72.4, 74.2, 75, 75.7, 75.8, female, 71, 72.2 per cent. In *pallascens* it is 69.7 per cent. The individual variability in the three Solomon Islands forms thus bridges the gap between *amoenus* and the more long-tailed members of the genus *Phylloscopus*. The wing of *amoenus* is 58-59.5, not 88.5-90 as stated erroneously by Hartert in the original description. The tail measures 38.5, 40, 40, the bill (from base) 15, the tarsus 22 mm.

The joint occurrence on Kulambangra of *Phylloscopus amoenus* and *Ph. (trivirgatus) pallascens* is another instructive example of a successful double invasion. A complete revision of the *trivirgatus* group is required before the nearest relative of *amoenus* can be found. When the second wave of *trivirgatus* reached Kulambangra, the first one (*amoenus*) had already acquired specific isolating mechanisms. There is some evidence that the same two waves also swept New Guinea, but produced only hybrid populations.

MALACOLESTES MAYR AND MYIOLESTES BONAPARTE

In 1933 (Amer. Mus. Novitates, no. 590, p. 5) I separated the morning bird of Palau (*Rectes tenebrosus* Hartlaub and Finsch) generically under the name *Malacolestes*. The chief characteristics of this species, as compared to *Myiolestes megarhynchus*, are its more pointed wing with a longer first primary, its longer bill, and its much softer plumage. These characters are unmistakable, but I have since come to the conclusion that they are not sufficient for generic separation. The species *tenebrosus* is clearly derived from the New Guinea species *megarhynchus*, and it would be misleading to conceal this close relationship by generic separation. The special characteristics of *tenebrosus* are due to its isolation on the Palau Islands.

A renewed examination of the relatives of *megarhynchus* shows clearly that not

even the genus *Myiolestes* can be maintained as distinct from *Colluricincla*. As far as proportions are concerned, there is nearly as much difference between the various forms of the species (or superspecies) *Colluricincla phaea* (= *harmonica*) as between the species of the "genera" *Colluricincla*, *Myiolestes*, and *Malacolestes*. The relative tail length (length of tail in per cent of length of wing) of various species and subspecies of the *Colluricincla* group is as follows (adult males only): *woodwardi*, 89.6; *tachycripta*, 88.5; *parvula*, 81.6, 83.8; *phaea*, 80.4; *megarhyncha*, 79, 81.5; *obscura*, 77.3; *boweri*, 76.2, 78.5; *rufiventris*, 71.3, 78.8; and *tenebrosa*, 71.7, 72.3, 73. The species *tenebrosa* has, thus, clearly the shortest tail, but the difference between it and *megarhyncha* is less than between *tachycripta*, *rufiventris*, and *phaea*, all three belonging to a single species or superspecies.

The shape of the wing shows the same. By measuring the difference between the longest and shortest primary and determining what percentage of the total wing length this distance is, the following sequence of wing tip indices is obtained: *rufiventris*, 23.1, 27; *phaea*, 23.1; *boweri*, 17.8, 20; *woodwardi*, 18.8; *tenebrosa*, 18.4, 18.8, 19.2; *tachycripta*, 18; *parvula*, 17.2, 18.4, and *megarhyncha*, 14.4, 14.7. The New Guinea species *megarhyncha* has the shortest wing tip, while *tenebrosa* falls in the midst of the Australian *Colluricincla* series.

As far as the relative length of the first primary is concerned it is 60.2, 60.6, 62 per cent of the total wing length in *tenebrosa* and 59.8, 60, 62.2 per cent in *megarhyncha*, which falls well within the range of the Australian species (58.6-66.4 per cent). The shape of the bill, the shape of the tail feathers, the bristles at the base of the bill in *tenebrosa* and *megarhyncha* are as in the Australian species of *Colluricincla*. The plumage of *tenebrosa* is distinctly softer and silkier than that of *megarhyncha* or of the Australian *Colluricincla*, but I do not consider this character as of decisive generic value.

I propose, for the stated reasons, not to recognize the monotypic genera *Myiolestes*

Bonaparte and *Malacolestes* Mayr, and to include the species *megarhyncha* and *tenebrosa* in the genus *Colluricincla*.

MELIPHACATOR MATHEWS

In 1932 (Amer. Mus. Novitates, no. 516, p. 3) I gave a description of this "genus" which had been proposed by Mathews (without description) for the species *Philotis provocator* Layard. Since that time I have examined many species of the genera *Meliphaga* and *Xanthotis* and have come to realize that the species *provocator* has no character that would justify its separation in a distinct genus. In fact, the similarity between *provocator* and some forms of *Xanthotis*, as, for example, *X. chrysotis macleayana*, is quite striking and indicates close relationship. I propose, therefore, to include *provocator* in the genus *Xanthotis*.

AMOROMYZA RICHMOND AND LEPTOMYZA STEJNEGER

When Verreaux and des Murs discovered in 1860 the giant honey-eater of New Caledonia, they named it *Leptonis aubryanus*, indicating by this nomenclature that they recognized its close relationship to the Samoan giant honey-eater, *L. samoensis*. Subsequently the species was separated generically by Stejneger under the name *Leptomyza* (1885). Since then it has been found that both names (*Leptonis* and *Leptomyza*) are homonyms of earlier names. The New Caledonian bird was renamed *Gymnomyza* by Reichenow (1914, Jour. Ornith., vol. 62, p. 488) and the Polynesian bird *Amoromyza* by Richmond (1917, Proc. U. S. Natl. Mus., vol. 43, p. 593). "*Amoromyza*" actually consists of two geographically representative species on Samoa (*samoensis*) and Fiji (*viridis*) [see Mayr, 1932, Amer. Mus. Novitates, no. 516, pp. 1-3].

The difference between *aubryana* and *samoensis-viridis* is primarily one of size and of the feathering of the face. The wing length of *aubryana* is 20 per cent greater than that of *samoensis*, the tail is longer and more graduated, the bill is more robust. *G. aubryana* has a naked area on the sides of the head, between eye and ear-coverts, while this area is feathered

in *samoensis-viridis*. Aside from this slight difference, *aubryana* and *samoensis* are strikingly alike in general proportions, feather structure, and habits. It seems contrary to all principles of classification to separate such close relatives generically. I, therefore, consider *Amoromyza* Richmond a synonym of *Gymnomyza* Reichenow.

In fact, combining *Gymnomyza* with *Melidectes* Sclater, a genus of Papuan honey-eaters, might even be suggested. In this genus also there is considerable variability in the feathering of the sides of the face. However, all the species of *Melidectes* (five species and superspecies) have a more slender bill, more slender and relatively longer tarsi, and much softer feathers. It seems probable that *Gymnomyza* is a descendant of *Melidectes* (I know of no other close relative), but the separation seems to have occurred at such an early age that the divergence has reached generic level.

Both facial pattern and size indicate that *G. aubryana* is a more specialized species than the *G. samoensis-viridis* group. It is, therefore, probable that the original *Melidectes*-like ancestor colonized central Polynesia directly from the New Guinea region, and that New Caledonia was colonized from central Polynesia at a later date.

THE GENERA OF MICRONESIAN WHITE-EYES

The islands of Micronesia are rich in white-eyes. The "Handlist of Japanese birds" (1932) recognizes no fewer than 10 species with 14 subspecies. Stresemann, in his revision of the Indo-Australian Zosteropidae (1931, Mitt. Zool. Mus. Berlin, vol. 17, pp. 201-238), arranges them in three groups, the species *conspicillata* (*ibid.*, p. 227), the Artenkreis *ponapensis-oleaginea-ruki* (*ibid.*, p. 230), and the genus *Megazosterops* (*ibid.*, p. 235), to which is to be added the subsequently (November, 1931) described genus *Rhamphozosterops*. A study of the Micronesian white-eyes has convinced me that Stresemann's classification does not give a true picture of the relationship of these forms. There is no question concerning *Z. conspicillata* which is a typical white-eye. Its geographical

rices are *saipani* Dubois (Saipan, Tinian), *rotensis* Takatsukasa and Yamashina, 1931 (Rota), *conspicillata* Kittlitz (Guam), *semperi* Hartlaub and Finsch (Palau), *hypolais* Hartlaub and Finsch (Yap), *owstoni* Hartert (Truk), and *takatsukasai* Momiyama, 1922 (Ponape). The classification of the other seven forms is quite confused. When Hartlaub described the Palau species *finschi* (1868, Proc. Zool. Soc. London, p. 6) he separated it in a separate genus *Tephras*. The characters he gave were as follows: "Differs from *Zosterops* in its differently formed beak, in the tail (which is rotundate in *Tephras*, emarginate in *Zosterops*), in the different form of the tail-feathers, in the less pointed wing, and in the want of an eye-ring." Four years later (1872, Proc. Zool. Soc. London, p. 96) Hartlaub and Finsch admit that the listed characteristics occur also in many other species of true *Zosterops*, and recognize no longer the genus *Tephras*. The white eye-ring, for example, is wanting in *Zosterops lutea uropygialis*, *Z. rennelliana*, *Z. rendovae*, *Z. stresemanni*, *Z. inornata*, *Z. sanctaerucis*, and others. Still, no one has proposed separating these species generically from *Zosterops*. The three forms *cinerea*, *ponapensis*, and *finschi* are so similar to one another, with *ponapensis* exactly intermediate between *cinerea* and *finschi*, that I do not hesitate to consider all three conspecific. Hartert (1900, Novit. Zool., vol. 7, p. 3) associated with this species also his Truk Island white-eye (*ruki* Hartert), and Stresemann (*tom. cit.*), follows him in this arrangement. After a close study of the characters of the various forms I have come to the conclusion that *ruki* has nothing to do with *cinerea-finschi*, but that it is closely related to *Megazosterops palauensis* Reichenow and *Rhamphozosterops sanfordi* Mayr, as well as to "*Zosterops*" *oleaginea* Hartlaub and Finsch (Yap).

The evidence is as follows: All four species are large, much larger than either *cinerea* or *conspicillata*. The wing measurements are: *palauensis*, 81-83; *oleaginea*, 65.6 (*fide* Hartlaub and Finsch); *ruki*, 78-83; and *sanfordi*, 68-71. The iris of the four species is as follows: gray-

ish in *palauensis*, reddish white in *oleaginea*, reddish in *ruki*, and brown in *sanfordi*. The legs are tan colored in *palauensis*, and yellowish orange in the other three species. The voices of *palauensis* and *sanfordi*, the only two species of which the voice is described, are very similar, "a musical, deep-throated sibilant" (Coul-tas), quite unlike that of any other white-eye. A white eye-ring is present in *oleaginea*, it is barely indicated in *palauensis*, and is more or less lacking in *ruki* and *sanfordi*. The proportions of the three species *palauensis*, *ruki*, and *sanfordi* (*oleaginea* was not examined) are very much the same, the tail length is about 62-63 per cent of the wing length, the tarsus about 31-32 per cent of the wing length. The only striking difference among the three species is the shape of the bill. The species *palauensis* and *ruki* (presumably also *oleaginea*) have a typical *Zosterops* bill, although it is rather heavy in these large birds. The bill of *sanfordi*, on the other hand, is elongated and curved, resembling that of a honey-eater (Meliphagidae). The length of the bill (from the lateral beginning of feathering to the tip) is 18.5 per cent in *ruki* and *palauensis*, as against 26.1 per cent of the wing length in *sanfordi*. The shape of the wing (wing formula) and the shape of the tail seem to be identical in the three species.

The conclusion to be drawn from this evidence is as follows: There are several species of large white-eyes in Micronesia, which seem to be more closely related to each other than to any of the typical white-eyes of the genus *Zosterops*. A number of features are peculiar to each of the species, like the slender, curved bill of *sanfordi* and the white eye-ring of *oleaginea*, but these differences are not striking enough to justify the generic division of this group. Ultimately it might be preferable to include all these species in the genus *Zosterops*, but at present it would seem best to recognize for them the genus *Rukia*.

The generic names *Rukia* (for *ruki*) and *Kubaryum* (for *oleaginea*) were published simultaneously in the same publication. As first reviser I select the name *Rukia*, which not only is shorter but is also based

on a species which I have been able to examine. The large Ponape white-eye was described almost simultaneously by myself and by Takatsukasa and Yamashina. The number of the Ornithologische Monatsberichte in which the description of *Rhamphozosterops sanfordi* Mayr was published was actually mailed on November 4, 1931. The earliest mailing date of any copy of the issue of the Dobutsugaku Zasshi, containing the description of *Cinnyrorhyncha longirostra* Takatsukasa and

Yamashina, which I have been able to ascertain, is November 23, 1931. This I have established by correspondence with the leading American and European ornithologists and libraries. The assertion of Japanese friends of the authors of *Cinnyrorhyncha* that they had seen copies of the description prior to November 23 seems hardly sufficient evidence to accept an earlier publication date. I, therefore, use the name *sanfordi* as having priority over *longirostra*.