Of the various emotions engendered by birds, hatred is not usually the first that comes to mind. The genus *Passer*, however, includes two species which became objects of violent animosity.

During the tumultuous Cultural Revolution of the People's Republic of China in the 1960s and '70s, along with wall posters and protest signs advocating the downfall of Bourgeois Capitalism and Yankee Imperialist Hegemony, there were often ones exhorting The People to "*kill rats, flies, and sparrows!*" Of course, sparrows were one of the "seven plagues" identified by the Great Helmsman himself, Chairman Mao (Travnicek 1986) which enabled one to demonstrate one's standing as a good communist and patriot by eliminating as many as he or she could.

My pious auntie, Marian Fang [Lindholm is of Swedish and Chinese descent], would pray in her room and sing hymns to drown out the regularly scheduled cacophony of everyone else on the block banging pots and pans and setting off firecrackers to frighten the Evil Birds into firing range. Uncle Peter, then Concert Master of the Shanghai Symphony and thus having no occasion to otherwise use air-rifles, always shot well over his minimum quota to ensure that Big Sister would not get in trouble at the next neighborhood brigade meeting when they tallied up the kill. Children were required to bring dead sparrows to school; I heard a recent NPR interview with Nien Cheng, whose 1987 book *Life and Death in Shanghai* details exactly how much trouble she got into during the Cultural Revolution — her daughter went to school with sparrows that "*Cook*" bought at the market.

The results of these programs were such that when Professor J.R. Hodges (1988), Chairman of the Council of the Avicultural Society visited China he reported, "The efforts of the Chinese authorities to rid Beijing of sparrows have been so successful that, during a four-day visit to the city, I did not see a single sparrow nor any other wild bird." Dr. Travnicek (1986) notes, "As communication and dialect are two of China's great and current problems, in the people's confusion and zeal to please their beloved Chairman, many wild birds were destroyed." It appears there was a corresponding rise in insect pests, whose depredations on agriculture were worse than that of their former predators. At any rate, Chinese ornithologists now appear to be having some success with "*Love the Bird*" campaigns.

The targets of all this proletarian wrath were Tree Sparrows *Passer montanus*. This species, which in pre-revolutionary China was a frequent subject of paintings and was an enormously popular cage-bird despite its being "as common in Peking as our English Sparrow is in London or Paris" (Delacour 1928), has a vast range across Europe and Asia. In 1870 and 1879, Tree Sparrows were released in St. Louis, and more than a century later "possibly 25,000" remain in the surrounding areas of Missouri and Illinois (Terres 1980). Though they do visit "grain fields to eat some wheat, oats and corn" (Ibid. 1980), their small numbers have prevented them from attaining the infamy that led to their destruction in China.

The failure of the Tree Sparrow to spread beyond the environs of St. Louis and east St. Louis is most likely due to the arrival in that area "around 1875" (Terres 1980) of *Passer domesticus*, the House (or English) Sparrow, another species found throughout Europe as well as central Asia and India. The first attempt to establish this species in America, by the Brooklyn Institute (now a major art museum) in 1851, ended in failure (only 16 were imported) (Laycock 1966). The Institute then brought in a large shipment from Liverpool, releasing some right off the boat in 1852, and the rest "on the grounds of Greenwood Cemetery" (where a man was "hired to watch them") in 1853 (Ibid. 1966). The next three decades are one of the sorriest episodes in American aviculture. As George Laycock (1966), in a detailed essay, relates, "For a decade or more, European bird dealers were confronted with eager Americans who came with faith, hope and money, determined to purchase Europe's songbirds as their contributions to bringing beauty to the new world." A typical case cited by Laycock (1966) was a Mr. L.H. Smith of Strathroy, Ontario, who, in 1874, was sent six pairs of House Sparrows by a "New York bird dealer" who charged the then extravagant sum of one dollar per bird. In 1887, dead House Sparrows for pot pies were "a dollar a hundred on the Albany, New York, market" (Laycock 1966). In 1886, Mr. Smith wrote to the U.S. Government Ornithologist W.B. Barrows, "If all the sparrows in our town are mine, and my neighbors all say they are, then I have at least plenty for my money... They are now in thousands in our town, and are plentiful in every town, city and village in this part of Ontario..." (Laycock 1966).

L.H. Smith's letter to W.B. Barrows was in response to the latter's investigation in 1886, on behalf of the U.S. Department of Agriculture, as to whether English Sparrows were really a problem (Laycock 1966). In response to the 5,000 surveys he sent all over the continent, he got 3,330 answers. Typical responses included, "It strips down green corn in the fields...", "I had a variety of wheat which I was growing for seed and they took every grain," and "...in buying chicken feed, I allow two parts for the sparrows and one for the chickens" (Ibid. 1966). And, even before this U.S.D.A. investigation, the effects of House Sparrows on native passerines was causing increasing alarm. Laycock (1966) cites early observations of the displacement of Purple Martins and other species and, of
The Golden Sparrow is still often listed in its own genus Auripasser, but the American consensus, at least now, appears to be that it belongs in the genus Passer.

Of course, today the House Sparrow’s threat to all three species of bluebirds through competition for nesting sites is well known. By the 1880s, all sorts of extermination efforts were in effect (Laycock 1966) with obviously little, if any, long-term results. Apparently there are many places in the U.S. where House Sparrows are less common than they were at the turn of the century, but this has to do with the transition from horsepower to electric and combustion engine modes of transport, with the resulting disappearance of manure in the street (the Chinese name for “Sparrow” translates as “Horse Bird.”).

In light of the notoriety of *P. montanus* and *P. domesticus*, it may come as a surprise that *Passer* is a predominantly African genus, 10 of the 19 species naturally breeding there. (The Indian subspecies of the House Sparrow is now a common bird in southern Africa, probably descended from “stow-aways” on ships rounding the Cape of Good Hope in the days before the Suez Canal.)

Six of these species have avicultural histories, and one has been commercially imported in large numbers. None of these will be of future concern to most California aviculturists as, with quite a variety of other Passeriform birds, no members of the genus *Passer* can be maintained in captivity in that state without a permit usually given only to zoos, registered suppliers or researchers.

Due to the intricacies of taxonomy, one species was sold quite legally in California into the ‘90s, and quite a few remain in private possession of individuals who are quite unaware their birds are prohibited. The Golden Sparrow *Passer luteus* was, for years, placed in the genus *Auripasser* (Latin for “Golden Sparrow”). Some ornithologists continue to maintain this distinction. In America, however, this bird is generally considered a *Passer*, and as such the State of California now prohibits it. In pet stores, the Golden Sparrow has always been fairly inexpensive, but never especially common, certainly not at the level of abundance of Red-eared and Orange-cheeked Waxbills, Paradise Whydahs or Red Bishops in the days before the Newcastle’s Disease restrictions imposed in 1972. Despite the fact that it is one of the very few largely yellow wild birds available to American aviculturists, its unsuitability for inclusion in community aviums has made it unacceptable to a great many people who might otherwise be interested.

After more than 30 years, *Finches and Soft-billed Birds* by Henry Bates and Robert Busenbark (1963) remains, in my opinion, the standard work for Americans on finches in aviculture and continues to be reprinted. Bates and Busenbark operated a retail shop in Palo Verdes, near Los Angeles, and birds from every commercial source passed through their hands, giving them an encompassing overview of...
the bird trade of the 1950s and '60s. While falling short of Chairman Mao's opinions regarding Tree Sparrows, their remarks on the Golden Sparrow are nonetheless unexpected in a book on cage-birds. "In all honesty, this is one species which the writers try to avoid. Regardless of the extreme affection which they feel for many birds, the writers hold the Golden Sparrow in a category of complete indifference." Bates and Busenbark (1963) recommend keeping this bird "only with larger and more aggressive weavers, Java Rice Birds, Cutthroats, and birds of similar size and disposition." I have it on very good authority that Golden Sparrows will kill other birds, especially when breeding. However, they don't always.

J.J. Walsh (1970), in Drouin, Victoria, Australia, bred Golden Sparrows in a "fully planted" aviary 40' x 18' x 9' high, with a variety of other birds, unspecified except for a breeding pair of Green Singing Finches. He mentions no aggression against other birds, though his pair, obtained in 1968 while still in juvenile plumage, "chattered and complained" every time he approached to feed after entering the aviary. Thus prompted to investigate, he found "a large untidy nest erected in some Tea-tree hung in the shelter." "The huge nest structure appeared to be camouflage for the small nest cavity in the centre reserved for the eggs." Three weeks after this discovery, "two chicks fledged from the nest, after loud chirping from the nest during the week which had preceded their flight." Both eventually assumed the female plumage, with most of the yellow replaced by dull brown or grayish-white, and wings that are a duller brown than the male's. In 1969, the pair fledged five chicks, all surviving. Aside from Mrs. H. Williams' 1905 account of her success a year before, cited by Coles (1987) as the first British breeding, Walsh's (1970) article is the only detailed discussion, so far as I'm aware, of Golden Sparrows over the near-century of the Avicultural Magazine's publication. Mr. Walsh does not mention what food he provides his birds, though one can well imagine there were all sorts of "supplements" to be found in an outdoor "wilderness" aviary in Australia.

According to Rutgers et al. (1977), Golden Sparrows may "breed several times in succession, and, even when no ant's eggs or mealworms are available, they usually rear their young . . . with greenstuff, soft food and soaked seed." These same authorities state that these birds "usually breed in nestboxes. They fill the whole of the inside with blades of grass and thin twigs, and generally provide the nest with a short tunnel entrance." In marked contrast to Bates and Busenbark (1963), Rutgers et al. (1977) consider Golden Sparrows to be "good cage or aviary birds" that can "be kept with smaller finches," and mention nothing of their aggression. This discrepancy may possibly be due to the fact that Americans have traditionally been more likely to crowd their aviaries than continental Europeans (Rutgers is Dutch). This may also explain the further divergence of Bates and Busenbark (1963) stating that this species "is not a good breeder in captivity."

I know of at least two aviculturists currently propagating this species in the U.S. D. Grenville Roles, well known to readers of AFA Watchbird, is not only Curator of the Tracy Aviary at Salt Lake City, but also maintains quite a varied collection of his own. He breeds Golden Sparrows indoors in his basement, where he has found them rather dangerous to other birds. He was quite successful in 1993, to the point of advertising surplus specimens. Grenville has assured me he will publish an account of his work with the bird. Eduard J. Hamilton, who, as founder and owner of South American Enterprises, holds permits to keep injurious wildlife in California, has set up outdoor aviaries near San Diego for quite a variety of African finches in anticipation of the possible cessation of their importation. Under these circumstances, Ed has not had major problems with Golden Sparrow aggression. He has bred Golden Sparrows repeatedly and, as I write in May 1994, has a new clutch of young in the nest.

It is again, I believe, due to this species' aggression and its "trashy" reputation that there has not been any particularly sustained zoo propagation. Over the period of 1959 through 1989, eight institutions, five of them American, hatched at least 26 chicks, fully rearing at least 13 (Zoological Society of London 1961-1991). The most sustained program was the
breeding of an unspecified number, from 1961 through 1963, at the research facility of the University of Tel Aviv. The San Diego Zoo bred an unspecified number in 1962 and a male and female in 1964. Milwaukee reared a male in 1976 and three males in 1977. The Seneca Park Zoo in Rochester, New York reared two unsexed birds in 1976 and one male in 1978. These are the only collections to have hatched Golden Sparrows in two different years.

As of 31 December 1993, five U.S. zoos were listed by ISIS (1994) as holding Golden Sparrows. None had bred them in 1993. ISIS indicates that at least 12% of the 26 specimens are captive-bred. The largest group is at the San Diego Zoo; nine males and eight females were held there. Otherwise there were three each at Wichita and the San Diego Wild Animal Park, a pair at Kansas City, and one male at the Gene Ried Zoo in Tucson.

Thus far, I have discussed *Passer luteus luteus*, the Western Golden Sparrow. The vast range of this subspecies extends from Mauritanian (partially bordered by the northern Atlantic), across the African continent, through the Sudan to interior Ethiopia. This great swath is “mainly between the 15th and 18th parallels” (Serle et al. 1977), with the result that the Golden Sparrow is not found in Ghana. It is thus not listed in CITES Appendix III (which, as I’ve explained elsewhere (Lindholm 1994), is the case for most of the traditionally imported African finches). Therefore, its commercial import to the U.S. is not prohibited (as it would be, under the terms of the Wild Bird Conservation Act of 1992, if it were on any CITES Appendix). However, since practically all the “more desirable” species which might otherwise make up a shipment coming out of Senegal or Mali are prohibited, I doubt anyone would go to the trouble of bringing in consignments composed largely of a species with so bad a reputation.

Contrary to Bates and Busenbark’s (1963) statement that the Golden Sparrow is “not a good breeder in captivity,” the most eminent of avicultural historians, Emilius Hopkinson (1926) provides several examples of the potential the western subspecies has of being prolific. In particular, he cites, from *Bird Notes*, the case of a Mr. Suggitt, in Britain, who bred Golden Sparrows “almost as freely as others do Budgerigars”, and in 1910 alone reared 13 young. Thus, I think it’s fairly obvious that, while we still have sufficient stock in this country, American aviculturists have the choice of establishing this bird or letting it become a memory. It all depends on what we want.

The eastern subspecies of the Golden Sparrow *Passer luteus euchlonus* is quite distinct. While the western, nominate subspecies has a brown mantle and wings, the eastern subspecies is the same yellow color on the mantle as is its head and underparts, with largely yellow wings as well, making it one of the overall yellowest of wild birds. Traditionally called the Arabian Golden Sparrow, this bird falls into the scope of this discussion as it occurs not only in southern Saudi Arabia and Yemen, but also the African Red Sea coast as well. This subspecies has a reputation of being “distinctly more peaceful” than its western relative (Rutgers et al. 1977). I do not know if this subspecies was ever imported into the United States. Emilius Hopkinson (1926) found no breeding record for the United Kingdom, but cites the German authority Neunzig to the effect that between 1880 and the First World War, the Arabian Golden Sparrow was “often bred” in Germany. The former presence of this bird in European aviculture is, of course, due to the fact that, before air-freight, the Suez Canal was the essential route from India and the Far East to Europe and England, making the African Red Sea ports busy and important places. The Arabian Golden Sparrow continued to appear in aviculture into the 1950s, and Rutgers et al. (1977) summarize the 1956 breeding of B. Mullard, of Camberley, England. A pair was kept in an aviary with Pekin Robins, Green Singing Finches (this seems to be a good combination) and Dominican Cardinals. The sparrows built a nest of “grass, moss and cow hair” and laid four eggs. The young were reared with mealworms as the only live food, the other food being canary seed, and yellow and white millet. A second clutch was laid about six weeks later, following the successful fledging of the first chicks.

Up to this time, the likelihood of Arabian Golden Sparrows arriving in this country has been remote. It still is. However, this last decade of the 20th century has been full of surprising and unanticipated alterations to the international scene. One that was largely overlooked was the secession of Eritrea from Ethiopia, after years of bloody warfare, in 1993. This new country lies on the shore of the Red Sea. What Eritrea’s policies on wildlife export will be remains to be seen. But, at any rate, there is now a new range of possibilities.

Like the Golden Sparrow, separated out as *Aviripasser*, the Chestnut Sparrow *Passer eminibey* has, at times, been placed in its own genus, *Sorella*. As far as I know, it is also the only other African *Passer* to be bred in the U.S., and the only other one currently maintained in this country, or at all likely to be imported in the near future. *P. eminibey* honors a most remarkable figure in the history of African exploration. Born Eduard Schnitzer, in 1840, in what was then Oppeln (in the German province of Silesia) and is now the Polish city of Opole, he took the name Mehmed Emin, became fluent in Turkish, Arabic and Farsee and, so the *Encyclopedia Britannica* tells us, “adopted a Turkish mode of living,” while in the service of the Ottoman governor of northern Albania in the early 1870s, having joined the Turkish Army as a medical officer in 1865. In 1876, he went to work for the British in the Sudan, first as a medical officer at Khartoum, then, from 1878 to 1889, as governor of the southern province of Equatoria. Graduating in rank from Effendi to Bey to Pasha, he conducted extensive biological surveys, went on diplomatic missions to Uganda, and ended slavery in his province. As a testament to his administration, when the Mahdist uprising wiped out Khartoum and the British abandoned the Sudan in 1884, Emin Pasha continued to govern Equatoria, totally cut off from the English, and apparently did very well — until 1888, when none other than Henry Mortimer Stanley (who seemed to be in the habit of “finding” people who hadn’t thought they were lost) showed up with a small army to “rescue” him. Emin Pasha didn’t think he needed rescuing, but the arrival of all these people with guns created such a stir that he had to pack up and leave. He and Stanley arrived in Tanganyika after a nine-month trek, and then he went to...
work for the Germans. He didn't get along well with his Vaterland, however, and left to explore the Congo free state in 1891, where he was killed a year later by Arab slave traders (who never forgot what he did in Equatoria).

At any rate, Emin was obviously still a Bey when he sent preserved specimens of what would be described as *Passer eminibey* from the Sudan to the German ornithologist Hartlaub. (Quite a number of the animals he sent to Europe were described in his honor; a subspecies of D'Arnaud's Barbet and a Giant Rat come to mind.) The Sudan is the western frontier of the Chestnut Sparrow's distribution, which otherwise includes Ethiopia, Uganda, Kenya and Tanzania. Though first imported to Germany in 1913 (Rutgers et al. 1977), this bird has only infrequently appeared in aviculture, and the earliest breeding record of which I am aware is that for the Natal Zoological Gardens in Amanzimtoti, South Africa, far to the south of its natural range, in 1966. Three males and two females were fully reared that year, and that is all the International Zoo Yearbook (Zoological Society of London 1968) reports.

There is one detailed, published account of a captive breeding of the Chestnut Sparrow, documenting the first British breeding. Allan Brooker (1986) purchased a male and two females, recently imported from Tanzania, in the summer of 1984. They were placed in a planted aviary 7-1/2' wide, 15' long and 8' high, with a “PVC roof,” which they shared with a “collection of waxbills.” Losing the male over the winter, he purchased two more in May 1985. Now having two pairs, he set one up in an adjoining aviary of identical dimensions. Mr. Brooker records, “There was a lot of chattering, typical of English Sparrows, and almost immediately interest was shown in the nest boxes of which there were three, measuring 6 x 4 x 4 inches . . . , in each aviary, of the same shape as a Budgerigar nest box.” He continues, “The birds quickly filled all six boxes with very fine grasses and hundreds of feathers. Each hen laid three eggs, which were bluish-white covered with brown speckles, and within three weeks of buying the cocks, one pair had two young but the other pair’s eggs were clear. The two chicks were reared and then another three. The other pair eventually reared two young but they had a lot of clear eggs. The incubation period was 18 to 19 days.”

These birds were supplied with a “mixture of white millet, panicum millet and canary seeds” supplemented with “hard-boiled eggs mashed and mixed with chick crumbs . . . fed all the year round.” Although Mr. Brooker (1986) supplied mealworms “during the spring and summer,” he never saw his Chestnut Sparrows eat them though he believes they probably did. He supposed they found “many insects” among the plants. Despite the fairly small size of his aviaries, he had no problem keeping “waxbills” with his sparrows, though the breeding Chestnuts did guard the top and perch of their nest boxes. Brooker (1986) wrote he was setting up potential unrelated pairs of progeny, but I have not heard since of further activities. The Swedish aviculturist Mats Tell (1990) reared two Chestnut Sparrows in 1989.

There is one unusual feature of Allen Brooker’s (1986) breeding of *Passer eminibey*. Both his cocks retained their solidly rich chestnut head, mantle and underparts throughout the year, instead of molting into an eclipse plumage identical to the female’s, streaky and “sparrow-like.” It appears the Chestnut Sparrow is the only *Passer* to assume an eclipse plumage (Williams and Arlott 1980), lending possible credence to its belonging in its own genus *Sorella*. It is possible that the “PVC roofs” of Brooker’s aviaries (which I infer to have been out-of-doors) may be the factor responsible for this.

At any rate, Ed Hamilton, who, by permit, maintains three breeding pairs in a planted outdoor aviary (30’ long, 14’ wide and 8’ high) in San Diego County, tells me his males undergo an eclipse much like that of a *Ploceus* or *Euplectes* weaver, commencing in August. Hamilton’s pairs have collectively produced around 20 offspring from 1991. Like Brooker’s (1986) birds, they are not particularly dependent on livefood while rearing their chicks, nests are built in “regular wooden finch nest boxes,” and the only aggression displayed towards cage-mates is the protection of the nest.

Should the Chestnut Sparrow be definitely recognized as belonging not
to *Passer*, but to *Sorella*, it should automatically go off the California prohibited list. Whether or not this happens, aviculturists in other states should attempt to establish this pro-
lific and uniquely attractive bird, which may continue to arrive in the occasional Tanzanian shipments that yet arrive in this country.

If the Golden and Chestnut Sparrow’s standing in the genus *Passer* is questionable, there are no such doubts regarding *Passer motitensis*, the Rufous or Great Sparrow (de-
pending whether one is in East or South Africa). From the illustrations in Williams and Arlott (1980) or Newman (1983), it will be seen that one could easily mistake this species for the House Sparrow. Therefore, of course, it has never been a popular species in aviculture, but aviculturists being avi-
culturists, it has been bred in captivity. As I mentioned in the first part of this article (Lindholm 1994), William Shore-Baily, of England, specialized in Ploceids and seems to have been par-

Mr. Shore-Baily’s (1923) pair went to nest “very early in April” 1923, in a nest built in a box by a pair of Cape Sparrows *Passer melanurus* the previ-

Twelve days after this disappearance, on 25 July, three chicks hatched. Though the parents fed them diligently on mealworms and fly larvae, only one survived to fledging, leaving the nest 15 August. The fact that the flight feathers were almost entirely white, as well as a “broad bar” on the tail, was attributed to abnormality, but Mr. Shore-Baily commented, “It looks very pretty in flight with its white wings, and not unlike a Snow-

I cannot find any record of *Passer motitensis* in this country. Though it occurs in both Tanzania and Bot-
wana, from where occasional ship-
ments of finches still come, I very much doubt we will see any due to so close a resemblance to the English Sparrow. On the other hand, I am somewhat surprised that I likewise find no record of importation to this country of *P. melanurus*, the Cape Sparrow, for though it is obviously related to *P. domesticus*, it is a very pretty bird, the male’s head pattern being remarkably like that of a Cuban Melodious Finch, if the Cuban’s yellow were replaced by pure white. The combination of this white semi-circle, surrounding a black mask and bor-
dered by a black crown and pectoral collar, is beautifully set off by a gray nape and primaries, chestnut mantle, and off-white underparts. The female again corresponds to a female Cuban Finch in its face pattern of off-white and gray. It is a “very common” bird throughout most of southern Africa, including the southern part of Bot-

Historically, the Cape Sparrow has had a positive captive history. Rutgers *et al.* (1977), writing from a Continent-
al European perspective, summarize, “These birds are easy to keep and will also breed. However, the young can only be reared on live food. They live peacefully with related and other spe-
cies and they well survive the winter in a frost-free location. The first British breeding was achieved by David Seth-Smith, who would later become Curator of Mammals and Birds at the London Zoo, and the much-beloved “zoo man” of the BBC Children’s Hour in 1901 (Coles 1987). William Shore-

The only species of *Passer* listed in CITES, and thus prohibited from entering the U.S., is *P. griseus*, the Gray-headed Sparrow. Of the species discussed in this article, it is, in my opinion, the least attractive avicultur-
ally. Illustrations in Williams and Arlott (1980) and Newman (1983) show it to be a patternless sort of Dolphin-gray, with brown wings, mantle, and tail, and a touch of white at the shoulder. This species was first bred in Britain in 1909 (Hopkinson 1926, Coles 1987). Rutgers *et al.* (1977), who, as I have mentioned earlier, were optimistic about the com-

*Passer griseus* is found over almost all of Sub-Saharan Africa except for rain forests. In East Africa it is found sympatrically with several very

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closely-related and similar looking species (Williams and Arlott 1980), probably evolutionary descendants that were once isolated from the parent population of *P. griseus*. One of these was featured in aviculture. Swainson's Sparrow *P. swainsoni*, "a very dark edition of the Grey-headed Sparrow with a chestnut-brown lower back" (Williams and Arlott 1980), occurs along the African Red Sea coast, in other words, the gate to the Suez Canal. Thus, it was bred before 1880 by the great German aviculturist Karl Russ (Hopkinson 1926). It was still showing up in Europe in the 1950s; Carl af Enehjelm, in Helsinki, Finland, bred it (among quite a few other species) in 1951 (Prestwich 1952). When, however, shipments of African birds came to Europe by air, Red Sea coastal species largely dropped from aviculture.

The four birds that make up the genus *Petronia*, the *Petronias*, or Rock Sparrows, appear to be sort of an evolutionary sideline off the main *Passer* branch, or perhaps broke off from a near ancestor to *Passer*. Two are found in Sub-Saharan Africa, another being of largely Mediterranean distribution, as well as the Canaries and central Asia, and the fourth occurring in the Middle East, India and neighboring areas. The British aviculturist Jeffrey Trollope (1979) pretty much sums up what can be said about *Petronia* in aviculture, "This lack of interest in the genus is not difficult to explain as, even in the days of uninhibited bird importations, shipments were few and erratic because of poor demand, as these birds lack colour, singing ability and rarity, three of the values on which avicultural demand is based. *Petronia* are not easy birds to breed, but they are interesting and display little of the interspecific aggression attributed to sparrows of the genus *Passer*. Apart from their lively and interesting behaviour, I think another avicultural virtue they possess is that, as hole-nesters, they can fill an ecological 'niche' in an avairy, without displaying the aggression which some other hole-nesters such as titmice demonstrate."

One species may possibly be available to American aviculturists, *Petronia superciliaris*, the Yellow-throated Sparrow. I saw one in a cage full of Tanzanian seed-eaters at the Pomona Bird Mart in 1990 and it is conceivable more could arrive as "fillers" in what further Tanzanian shipments may yet arrive here. Williams and Arlott (1980) present paintings of two subspecies that occur in Tanzania (they consider them different species). The more northern one has a less well defined yellow throat-patch and white "eyebrows." Otherwise both are basically gray birds with white throats. From Newman (1983), one can see that the southern African birds have especially well-defined "eyebrows." Newman (1985) cautions that the yellow breast spot is "not a field character." It is faintly possible specimens may show up in Botswanan shipments.

Of the four *Petronias*, *P. superciliaris* is the only one with no record of captive propagation. There are two *Avicultural Magazine* articles on the breeding of the other Sub-Saharan species, *P. dentata*, the Bush Sparrow or Lesser Rock Sparrow, which, listed as CITES Appendix III for Ghana, cannot be imported to the United States. I have not had the opportunity to read Jeffrey Trollope's (1977) account of his success, the first British breeding, in 1976. The other account is by Curt af Enehjelm (1956) who was not only a private aviculturist but Director of the Helsinki Zoo as well. His account is particularly striking in that it contradicts horror stories I read (or heard), whose source I cannot now place, concerning murderous aggression on the part of Rock Sparrows. If I remember properly, the killings took place in a cage, probably over-crowded. All that aside, Dr. af Enehjelm did not over-crowd his birds. As he describes, "In 1955 I erected a new indoor flight 22 by 10 feet and 6 feet high, with three large windows facing south and a smaller one facing east; this was rather sparingly equipped with branches, leaving much flying space. Numerous nests of different models: Harzer wicker cages, half-open boxes, Budgerigar nest-boxes and Keston triangular nest-boxes were hung on the walls at different heights from the floor to the roof." Into this aviary, in March 1955, he released at the same time, a pair of *Petronia dentata*, as well as pairs of Black-rumped, Orange-cheeked and Golden-breasted Waxbills, Strawberries, Gordons, Parsons, Masked Grass Finches, Owls (his specialty), Diamond Sparrows, Red-headed Parrot Finches and Cuban Melodious Finches. At the end of March, the female *Petronia* was seen emerging from a Keston triangular box (named after the world-famous English breeding center that operated from the 1930s through the 1960s). Dr. af Enehjelm was surprised to find the nest composed entirely of small feathers which had blown into the room through the netting from an adjoining flight for young Budgerigars, despite the abundance of other nesting materials. Two eggs were present. Both had hatched by 1 April, and the chicks respectively left the nest 19 April and 22 April. The first egg of a new clutch was laid 23 April, and one was laid each of the next two days. Only one of the three hatched, doing so 7 May. This chick fledged 27 May — the same day a third clutch was started, completed by a second egg the next day. These disappeared 14 June, and were replaced by a fourth clutch, laid 18, 19 and 20 June. Two chicks hatched 1 July, and the last hatched 3 July, respectively leaving the nest on 23, 24 and 25 July. Dr. Enehjelm (1956) notes, "At this time some other bird had removed all the feathers from the nest so that the three youngsters were sitting on the wood
of the box, not very comfortable when the form of the triangular box is considered." This was the season's final clutch. At the time Dr. Enehjelm's article was written, all the fledged chicks were still in the aviary and doing well.

Considering that Jeffrey Trollope (1979) felt Petroniaias are "not easy birds to breed," it is likely that Dr. Enehjelm's seemingly effortless success is at least partially due to the abundance of fresh (as opposed to dried) ant pupae (ant's eggs); "As to rearing food, egg-food, fresh ants' eggs, sprouted millet, canary seed, oats and sunflower seeds were offered..." As mentioned earlier, the rearing food was scattered on the sand in a large shallow box. As far as I could see, fresh ants' eggs were first taken when fresh food was offered. I suppose, however, that other kinds of food were also used as the rearing food was only offered once a day" (Enehjelm 1956). He goes on to explain, "I have always fresh ants' eggs at hand, outside the season frozen. It is my impression that many birds start to feed more easily when they have fresh ants' eggs at their disposal than with any other food. When the youngsters in this way are not starved from the start they will be able to beg for more food more energetically, which stimulates the parents to take other rearing foods, too, which they probably would not use if the feeding instinct (or reflex) had not first been released by that, from the bird's point of view, obviously very desirable food, the fresh ants' eggs." Of course, ants' cocoons in any state are not now a usually obtainable item for Americans, but we do have commercial sources of tiny mealworms, maggots, pinhead crickets and fruit flies to experiment with.

Dr. Enehjelm (1956) appears to have heard the horror stories about Petronia aggression, as he qualifies his observations of his birds, "I do not know if it is a special or individual character of this pair, but the birds have all the time been as peaceful as a pair of Bengalese or Parrot Finches. I never saw them chase or attack any other birds. Even when sitting on a new clutch, the older youngsters were never chased. The birds were not shy, the hen never left the nest till I was close in front of the nest opening. Ten minutes after the nest had been hung in place and I had left the flight, she was sitting again."

Of course, one cannot presume that nearly forty-year-old results for Petronia dentata can certainly be duplicated for P. superciliori, but we won't know unless someone attempts to breed from whatever specimens continue to be available — and publishes the results.

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