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The Statute of Limitation — Stability or Chaos?

by

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The Statute of Limitation — Stability or Chaos?

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There are a number of systematists who apparently do not feel that the regulations that have hitherto controlled nomenclatural procedure are satisfactory, at least in the matter of promoting stability, and that a device such as the Statute of Limitation with its "Nomen oblitum" will go a long way to achieve this. It is, however, clear that there are at least almost as many who have firm views in opposition.

With the exception of certain restricted phases it appears at present almost impossible to attempt to enforce or even to organise "stability" in science, we are in all branches of science at stages of knowledge where change is an essential accompaniment of progress and development. You cannot without stultification "stabilise" science any more than you can "stabilise" a human being. It may be argued that in chemistry the names of the elements have been stabilised, but they are few, and their characters have long since passed from the stage where their indisputable identities are in any way arbitrary. They are no longer within the scope of individual human judgment, as is still the case with a very great proportion of the exceedingly numerous often variable biological units. For example it is still not uncommon, for ichthyo-systematists at least, to disagree and to dispute about whether a notably polymorphous organism represents one or more species. Are they to be ordered to cease from disputation and to arrange a compromise in order to achieve an artificial "stability" that will almost certainly embrace the elements of later disruption?

In a human lifetime fifty years may seem a long span, but as a period in science it is a mere instant. By A.D. 3000 any period of fifty years in the 19th and 20th centuries will have faded into an inconsiderable "spanule" of historical time, and will certainly not be considered to merit the distinction conferred on it by the "Nomen oblitum" statute of that time. Even the two "World wars" that in our fifty years overshadow all else, will by A.D. 3000 have merged virtually indistinguishably into the equivalent turbulence of Napoleonic and even prior vintage. They will in that perspective to scientists be of less significance than the contemporary first use of atomic power and the discovery of living Lungfishes and Coelacanths. The sponsors and supporters of Article 23(b) in its present ambiguous form possibly did not foresee all the new problems it creates. Certainly as far as fishes are concerned the strict application of the statute in its present form as shown in part below may well lead to chaos rather than stability.

In erecting a new species a systematist is under an obligation to have made an honest and thorough investigation of relevant literature, and if possible of earlier types, to confirm as far as is possible that the particular entity has not previously been discovered and described in such a fashion as to leave no doubt of its identity. Retention of the "Nomen oblitum" will undermine these fundamentals, for it will protect the careless or indifferent systematist — indeed one may go further and state that it may even encourage carelessness and engender unnecessary complication of nomenclature. Under the regulations hitherto in force a new name that was in effect a junior synonym, proposed carelessly or irresponsibly, could scarcely escape ultimate relegation to its merited inferior status. Such a name had little chance of achieving ultimate validity. Under the cloak of the "nomen oblitum" there is always a reasonable possibility that names of that type may eventually achieve valid status. There will therefore be less reason for workers to be cautious about the erection of new species on the most slender grounds — or on none at all. (See the case of Apogon semiornatus below.) Further, long treasured, carefully preserved types may overnight lose their significance in scientific records from the declaration that the name they bear is to be obliterated. They will be in a much poorer situation than types of species whose names are demonstrably junior synonyms. The practice of systematics will be greatly impoverished, since fascinating research into past history, and the tracing of true genealogies will in many cases prove futile and merely serve briefly to disinter names that will be compulsorily reconsigned to oblivion.

There will be cases under this statute where the earlier officially 'verboten' name will have been based on description and illustration at least as good as those of the later worker it unjustifiably favours. This statute may well prove highly discriminatory against outstanding meticulous earlier workers on fishes of areas such as the Red Sea and the Western Indian Ocean, which until recently more neglected than probably any others comparable, are characterised by abnormally long gaps between publications on their fauna. Quite often the junior replacement synonym is in existence only because the author was indifferent to his true responsibilities as a systematist, and in some cases because it was sponsored by an author or authors of such prominence that neither contemporaries nor immediate successors had the temerity to dispute its validity. In all such cases, without the "nomen oblitum," the truth ultimately prevailed, or would prevail. With this statute, what every true systematist instinctively abhors is afforded a high degree of protection.

Mayr (Ann. Mag. Nat. Hist. 1963, (13), **6**, 509) in his rebutment of Crabill's assessment of 'nomina oblita' (**ibid**, 1962, (13), **5**,

505-10). in relation to the revalidation of names forgotten for more than 100 years, states "To give validity to such names . . . through the proper description of the types by a subsequent revisor, at the expense of stability of nomenclature, would seem to violate common sense and at least **my** sense of justice." This is an almost startling new aspect of the fundamental basis of validity and priority of names. There is no indication whatever in its wording to suggest that the statute of limitation will operate on either common sense or a sense of justice. If there is any question of justice, then it is surely not justice to promulgate any regulation by means of which scientists who have passed on can by any means, through no fault of their own, be deprived of their just place in nomenclatorial history and records, merely because their successors have not recognised the true merit of their work. What is worse is that this statute transfers this recognition to later authors who often have less claim to distinction, indeed not uncommonly because they were negligent, indifferent or careless in erecting a synonym for a species previously described unmistakably in literature available to them, indeed often at hand. With regard to the "injustice" of giving validity to a name without valid use for more than 100 years by a subsequent revisor, the following case where this has occurred recently is of interest in that it is beyond the reach of the statute.

In 1830 Cuvier and Valenciennes named a fish from Tahiti, **Diagramma pica**. While rather rare this species is fairly widespread, but it happens to resemble closely the juvenile of the related and much more abundant orientalis Bloch, 1793. In consequence, whenever the the name pica or picus has been used in primary zoological literature it has invariably been as an invalid synonym of orientalis. On the other hand specimens of genuine picus C & V, that have been found and recorded, have all been malidentified and named orientalis Bloch. This confused nomenclature I revealed in a monograph in 1962. Thus while picus C & V, 1830 did not appear as a valid name in any literature for over 130 years, it was nevertheless inviolably revived as a valid name in 1962. Merely because it happened to resemble another species, those who found it accepted uncritically its malidentification and hence did not name it as new. In this case the validity of the name with no valid usage for 130 years cannot be challenged. If, however, some (careless) worker had happened to erect a junior synonym at any time during the 81 years from 1831-1912, **picus** would have become a "nomen oblitum" and the unjustifiable synonym and its author elevated to immortality.

For many reasons ichthyology has its own special problems. There are at least thirty thousand species of fishes, among them many, including some ridiculously small and feeble, that cover or have colonised enormous areas of the oceans or coastlines. In many countries such as South Africa, in many families the systematist cannot wisely pronouce a marine fish as new to science without searching the literature covering the greater part of the vast Indo-Pacific area, often the whole globe. Not all systematists do this, in earlier times many workers, especially in remote areas, did not have ready access to literature, a situation which persisted until partly remedied by modern communications and devices. And there appear always to have been systematists, some quite eminent men, who have named new species without adequate justification, implied or recorded.

There are important groups of fishes, especially some of the Indo-Pacific, whose nomenclature is still chaotic, resulting from a variety of causes such as disbelief that an apparently localised form may have wide distribution, or from lack of understanding of critical diagnostic characters, or of changes that occur with growth, sometimes apparently merely from a conviction that the fishes of one region must be different from all others.

From all these causes nomenclature in ichthyology is probably more labile and complex than that of any other natural group, and the "nomen oblitum" issue is likely to prove more troublesome than useful.

Authors of classical revisions of quite recent years, which have been hailed with relief by systematists everywhere, are now suddenly faced with the prospect that the basis for stability they have thus laboriously erected is to be demolished at least in part, and new problems created. Names resurrected after long search in an attempt to stabilise nomenclature for species long a problem in that respect are now suddenly threatened with relegation to a new artificially created oblivion.

The case of Diagramma pica C & V, 1830 outlined above is far from unique in ichthyology. Such cases, which may possibly be parallelled in other branches, and which now are interesting, acquire new and disturbing significance from the "nomen colitum." For example, in the Proc. Zool. Soc. London, 1887, Gunther described and figured a fish, Latilus fronticinctus, from Mauritius. This is a rare species that in some curious fashion eluded all later workers in that area. Its bare name appears in an uncritical list of Fishes of the region of Madagascar, Mauritius etc. compiled by Sauvage and published in 1891. But the name Latilus fronticinctus has not appeared in primary zoological literature from 1887 (1891?) - 1964, not even in recent lists of Mauritius fishes. (I happen to have in the press a paper describing a newly discovered congener from Vietnam as well as fronticinctus itself.) Under these circumstances the validity of this 73 year long neglected name remains inviolate, whereas if some worker had got another specimen before 1914 and (carelessly) named it anew, fronticinctus would have become a "nomen oblitum," despite the fact that Gunther's original description and illustration are excellent, and the type and several paratypes are in the British Museum, one at least in almost perfect condition.

The focus of world wide interest on the importance of fishes as food has caused an almost explosive development in ichthyology during the past fifty years. One consequence is that a number of standard works of earlier times have been in such demand that they have been reprinted as exact facsimiles. This has been a great boon to systematists, but the "Nomen oblitum" converts them from an asset into a problem. If part of "primary zoological literature" published in 1861 be reproduced as a facsimile in 1961, most systematists will immediately agree that the names it holds should for any purpose surely date as 1861. However, some of these facsimiles (e.g. the well-known Day's "Fishes of India") bear only the (recent) date of issue of the facsimile.

There is a further complication. It was at one time not uncommon for authors to publish names and descriptions of species, including their own new species, identically, more than once. One species may feature identically in several publications over a period e.g. 1852-1872. In such a case is every appearance after 1852 to be accepted as a separate usage? Without the statute these cases present no problem, but if it be retained this point may often prove critical in deciding whether a name is "oblitum" or not, and may well lead to contention.

It is significant that those responsible for this statute have come to recognise some of its more troublesome consequences, and there is at least a possibility that some type of restrictive amendment may be introduced.

Mayr 1963 (loc.cit.510), in his reply to Crabill 1962 (idem, 5, 505) states i.a. that "If the junior synonyms in these two cases have been used in the zoological literature less than 10 times, even these two names will be protected under the Declaration to be adopted (sic!) by the International Commission according to the instructions voted by the International Congress at Washington." This does not, however, correspond with the terms of the official report on the proceedings of the Washington Congress published in Vol. 23, part 3 of the Bulletin of Zoological Nomenclature, 7th August, 1964; and in a letter dated 13th August, 1964, Dr. Mayr has informed me that while he is not able to give the exact version, projected restriction if adopted will be on the lines that Article 23(b) should be used only for such junior synonyms which during the period of neglect of the senior synonyms have been used by several authors over a minimum of 10 years. Dr. Mayr qualifies this by stating that the form of this Declaration may be revised by the Commission. At the present time, therefore, (August, 1964), Article 23(b) has not suffered restriction and there is no certainty that those at present charged with the decision in this respect will decide to impose any.

One important point not clearly defined in the Statute is whether the 'period of neglect' is to be restricted to include the immediate past. As Follett (1963, A.I.B.S. Bull, **13** 15) has pointed out, this particular restriction was originally proposed but was, apparently deliberately, omitted, implying that the 'period of neglect' was not to be restricted in that fashion. In a recent letter Dr. Mayr has kindly sent me an interpretive example indicating that no such restriction on the 'period of neglect' is implicit in the present form of 23(b). On the present wording apparently, as long as there is any "period of neglect" exceeding 50 years at any stage of the career of a senior synonym it must become a "nomen oblitum." Indeed there appears to be no valid reason for the assignation of such tremendous importance in nomenclature to this immediately preceding period of fifty years, or why this particular fifty years should be so much more significant in this respect than any other in nomenclatural history. While apparetly so to present protagonists, it is not clear why this perspective should be expected to persist.

In the latest Record (August, 1964) the opinion of the Commission is still narrowly but firmly opposed to the withdrawal of 23(b). It is also recorded that an explanatory motion by Dr. Key, especially restricting the 'period of neglect' to include the immediately preceding fifty years, was defeated. At the moment, therefore, there is no certainty that modifying restrictions will be adopted by the Commission.

As shown below, on its present basis the statute gives rise to situations in systematic nomenclature in ichthyology that are improper, even unjust, some that can only be described as chaotic, and these can be eliminated only by such drastic restrictive modifications that their adoption will leave the statute almost without purpose or application. The two chief restrictions under consideration for the present form of 23(b) are:

- 1. The 'period of neglect' is to include the fifty years immediately preceding, i.e. in 1964, from before 1914.
- The junior synonym shall have been used during the 'period of neglect' either (a) at least ten times, or (b) by several authors over a minimum of ten years.

The few cases to which this restricted form would apply could as before more simply be left to the judgment of competent systematists. No name should automatically be relegated to oblivion, there should be formal application and due notice of such decision.

A number of situations and matters that are normally quite simple, are by the present form of 23(b) elevated to troublesome status where further rules and restrictions become necessary. Of these a few are outlined below.

 It will be necessary to define exactly what constitutes "Primary Zoological Literature." Leading established scientific journals have unquestioned status but cases such as the following will necessitate special clarification.

- (a) A popular Natural History series may publish a photograph of a species with a valid scientific name (CS), so that its identity (species CS) is indisputable.
- (b) A Government Fisheries Journal may publish a bare list of fishes taken by some operation in a particular locality. Species **GS** (above) is among those listed. The accuracy of (a) is unquestioned — in case (b) there may be doubt. Are both to count as "usage"? Each such case will need clarification. For example:
 - i. A list of Nile fishes "recorded in Egyptian waters according to Boulenger" prepared by a scientific assistant in the Fisheries Research Department, appeared as part of a report on the Fisheries of Egypt of 1932, published in 1935. Attached are also bare lists entitled "Mediterranean Fishes" and "Red Sea" fishes.
 - ii. A French scientist in 1951 (Le.Nat. Malgache, **3**, 1-9) gave a list of fishes from Amsterdam and St. Paul's islands. He states that the names are taken from Gunther's Catalogue of fishes of the British Museum (1859-1870). Are these "usages," and if so what dates should they bear?
- (c) When names are published in lists in reputable journals by scientists it is customary to accept their identifications as valid. In fishes, however, this is often patently not the case. For example, earlier workers have recorded from the Cape of Good Hope tropical species that could not possibly live in such cold seas. And there are in zoological literature early records from the Western Indian Ocean of Atlantic species not likely to occur there and certainly not found by later workers. In these cases it is only the expert on the region who is competent to express an opinion about the validity of such records, any one of which may be critical in a case of "nomen oblitum." When a record is based on a malidentification, that is not a 'usage.' If, however, there has been only a confusion of localities, it will be a valid 'usage.' Who will determine this, especially if the specimens on which records are based are not available?
- (d) One Nicholas Pike made paintings of fishes of Mauritius during 1867-1874. On these, names were written, assigned by several authors before 1883. Some of the names were later published with descriptions so as to give them proper status in nomenclature. In 1929 in a reputable scientific journal Gudger published a bare uncritical list of all the names as they appear on the paintings, i.e. bearing the names the fishes were given before 1883. If those date as 1929, the date of Gudger's list, some could be critical in certain cases of "nomen oblitum." Some names listed in

that way do not appear to merit 1929 seniority, but this may be disputed. How will the Commission decide in such cases?

- (e) Wuitner 1935 (Ann. Ass. Nat. de Laval-Perrot, 13, 60-76) listed names of mounted fishes, the originals having been collected at Reunion in 1870. One is described as a new species (but is not) by Pellegrin, 1935, the rest of the names are stated as having been culled from (vol. 19 of) an Encyclopaedia of Natural History by one Dr. Chenu, 1882, one of them, e.g. **Acanthurus guttain** Bloch, we cannot trace at all! This work of Chenu was published first in 1850-1861 but was frequently reissued with title pages bearing later dates. Can this publication of Wuitner, 1935 be classed as primary zoological literature, and if so does it date as 1935?
- 2. As far as is known there is no institution which can possess a complete set of indisputably valid nomenclatorial references covering all the fishes of the world. To prepare one would be virtually impossible at the present time, since the validity of synonymy is in many cases still a matter of divergent opinion. Enormous labour may well be involved in proving or disproving each "discovery" that may be reported to the Commission of a name that is stated not to have been used in the "Primary Zoological Literature" for more than 50 years.

It is very much more difficult to prove that a name has not been used in any particular period than to demonstrate that it has. The wording of the Statute is deceptive. It indicates that the matter of proving a completely blank 'period of neglect' involves little more than 'discovering' this. While this may be true in some branches, in ichthyology, especially of the Indo-Pacific, it certainly is not. Fishes from that enormous area have by devious means reached and been worked on in many different countries, and publications about them have appeared in a great number of scientific journals in many languages and countries. Even wonderful compilations such as Dean's Bibliography and the Zoological Record are not perfect and suffer from occasional lapses. Despite our utmost endeavours over many years, for example, we cannot be certain that we have achieved an absolutely complete set of references to the fishes of even only the Western Indian Ocean. What guarantee will the Commission have that any person who reports the 'period of neglect,' has achieved the degree of utopian perfection required? It is thus quite possible that after a name has been 'discovered' to be, and formally registered as "oblitum," somebody some time later may discover another previously unknown usage within the period of neglect, so as to reduce that to less than 50 years. If this happens after a considerable time, revalidation of the 'verboten' name may well result in nomenclatorial chaos far

worse than any the Statute is intended to obviate. The alternative would necessitate a further amendment to the Statute to the effect that once a name is officially listed as "oblitum" no subsequent discovery of this kind will be recognised. In that case, due to ignorance or carelessness a good name meriting recognition might be relegated to oblivion as a result of a "period of neglect" of possibly only thirty years, and later discoveries might even reduce this still further.

3. When, in a case of "nomen oblitum," scientists disagree about whether a certain record refers to the same taxon as the other records, who will decide? In such cases names in dispute may often be critical in deciding whether a name is "oblitum" or not.

The whole issue, unless 23(b) be greatly restricted and hedged round with an at present unpredictable number of definitions, shows such clear promise of never-ending complexity and potential instability, in ichthyology at least, that any advantages it may be hoped to engender will constantly shrink. It appears to be certain that in ichthyology it will scarcely be possible to prevent nomenclatorial research of the future from being channelled into search for and establishment of ultimate fundamental priorities. In the meantime, however, there will be systematists who abide by the statute and use names that will almost certainly later by official revalidation of the senior synonym again be relegated to junior status. There will be continual opposition from systematists when attempts are made to compel them to request validation of names that their researches and expert knowledge indicate as valid. The traditional procedure of chronological priority, while not perfect, is fundamental, not arbitrary, and works very well. The concept of the "nomen oblitum" in any form represents as great a break in tradition as a change in the constitution of a country. In such cases it is necessary to stipulate a clear one third majority as necessary for any profound change, since experience has shown that anything less holds clear potential of disruption. In the case of the "nomen oblitum" there has throughout been only the barest minimum majority in its favour, and in consideration 'de novo' it might be wise to stipulate that this contentious matter be withdrawn unless there is at least a two thirds vote for its retention. Two recent clear votes on this issue are significant. As a result of a questionnaire to the Society of Systematic Zoology, 50.4% were in favour of a "moderate application of priority." A recent proposal to withdraw the "nomen oblitum" was defeated by the Commission by eleven votes to ten. It is chastening to reflect that a single thrombosis or car accident could alter the whole situation.

It is difficult to see what benefits can be achieved in ichthyological nomenclature by this limitation under any conditions and it is to be hoped that it will be withdrawn, with reversion to the sounder long term policy of fundamental priority as hitherto accepted.

To illustrate some of the consequences that will arise from even the restricted form of this statute in nomenclature of marine fishes, a few typical immediately obvious cases of "nomina oblita," chiefly of fishes found in South African seas are cited below. There are others comparable.

The first three cases, **Lutjanus kasmira** (Forskal, 1775), **Lactarias lactarias** (Blch-Schn, 1801) and **Leiognathus equula** (Forsk, 1775), typical of a number in ichthyology, are of interest in revealing how commonly systematists without difficulty cope with complicated nomenclatural change resulting from periodic 'vogues' for different names, and that 'periods of neglect' in excess of fifty years have frequently occurred without affecting nomenclature.

In all cases below 'period of neglect' is not the entire period during which a name was not used, but is the period when it was not used after it had become a senior synonym, (subject to the reservation outlined on p8). References given are to valid synonyms only, malidentifications are not included.

Family Lutjanidae

Lutjanus kasmira (Forskal, 1775)

Sciaena kasmira Forskal 1775, 46. Bonnaterre, 1788. Gmelin, 1789. Walbaum, 1792. Bloch-Schneider, 1801.

Labrus kasmira Lacepede, 1802.

Diacope kasmira Klunzinger, 1870.

Lutianus kasmira Day, 1888. Jordan & Snyder, 1901 and from then at varying mostly short intervals by numerous authors up to Fowler, 1959. Smith & Smith, 1963.

Synonyms are:

- 1. **quinquelineatus** Bloch, 1790. Walbaum, 1792. Lacepede, 1802. Meyer, 1885 and several more to Ishikawa & Matsuura, 1897, not thereafter.
- 2. **quinquelinearis** Bloch, 1790. Forster, 1795. Lacepede, 1803. Day, 1875 and numerous further usages to Pillay, 1929, not thereafter.
- 3. **bengalensis** Bloch, 1790. Walbaum, 1792. Forster, 1795. B1.-Schn., 1801. Lacepede, 1802. Gunther, 1859, and over forty more usages to Regan, 1908, not thereafter.
- 4. tranquebaricus Shaw, 1803, Once only.
- 5. octolineata C & V, 1828 used at least 8 times up to Sauvage, 1891, not thereafter.
- 6. notata C & V, 1828. Peters, 1855. Gunther, 1859. Playfair, 1866. Schmeltz, 1866. Sauvage, 1891, not thereafter.
- 7. octovittata C & V, 1830, twice to Gunther, 1859, not thereafter.

- 8. spilurus Bennett, 1832. Gunther, 1859. Fowler 1931.
- 9. pomacanthus Bleeker, 1855, 1865 (1868). Not again.
- 10. grammica Day, 1870. Once.

The original name **kasmira** has been used for almost 200 years, but suffered a 'period of neglect' from 1802-1870. The first available junior synonym **quinquelineatus** Bloch, 1790, used until 1897, had two 'periods of neglect,' first, Lacepede 1802 — Meyer 1885, and also 1897-1964. The next available often used junior synonym **quinquelinearis** Bloch, 1790 had a 'period of neglect' from 1803-1875. The next available name **bengalensis** Bloch, 1790 at one time much in vogue and used at least forty times to 1908, had a 'period of neglect' from 1803-1859. The next available junior synonym is **tranquebaricus** Shaw, 1803, used once only, had a 'period of neglect' 1828-1964. Its proximate junior synonym **octolineata** C & V, 1828, used 8 times to Sauvage, 1891, has a 'period of neglect' 1891-1964. The proximate little known, **notata** C & V, 1828, used until 1891, has a 'period of neglect' from 1891 onwards — and so on right to the end of the list of synonyms.

Family Lactariidae

Lactarias lactarias (Bloch-Schn, 1801)

Scomber lactarias Bloch-Schn, 1801, 31.

Seriola lactaria Cuvier, 1829.

Lactarias lactarias Evermann & Seale, 1907. Seale, 1910. Fowler, 1918: and 1927: and used at short intervals continuously until 1963.

Synonyms:

 delicatulus C & V, 1833, 238. Richardson, 1845. Cantor, 1850. Bleeker, 1845. Bleeker, 1852. Gunther, 1860. Day, 1865. Day, 1878. Gunther, 1880. MacLeay, 1884. Day, 1889. Boulenger, 1904. Lloyd, 1907, not thereafter.

2. burmanicus Lloyd 1907, 227.

L.lactarias BI-Schn, 1801 has been universally accepted and used since 1907, but it had a 'period of neglect' of 74 years from 1833-1907. We cannot find that the proximate synonym **delicatulus** was used after 1907. Therefore, if validated, it becomes a ''nomen oblitum'' by virtue of the solitary **burmanicus** Lloyd, 1907 used by nobody but the author, and for good reasons, once only.

Family Leiognathidae

Leiognathus equula (Forskal, 1775)

Scomber equula Forskal 1775, 75.

Equula equula Klunzinger 1884, 107. Munro, 1960.

Leiognathus equula Jordan and Starks 1917, 44. Fowler, 1918. Chaudhuri, 1923, and numerous usages since that time up to 1963.

Synonyms.

- 1. edentulus Bloch, 1785, 428: and 1795. Gunther, 1860. Bleeker, 1863, and numerous usages up to Seale and Bean, 1907. Gilchrist and Thompson, 1908. Regan, 1908, and not thereafter.
- 2. argenteus Lacepede 1802. Once.
- 3. ensifer Cuvier, 1829. Once.
- 4. **ensifera** C & V, 1835, 66. Bleeker, 1845, and numerous usages to Sauvage, 1891, not thereafter.
- caballa C & V, 1835, 73. Cantor, 1850. Gunther, 1860. Klunzinger, 1880. Jordan and Richardson, 1908. Seale, 1910. Herre, 1927.
- 6. obscura Seale, 1901.
- 7. coma Jordan and Richardson 1908, 253. Once.

Thus **equula** Forskal, 1775 used over close on 200 years, had a 'period of neglect' of 99 years, from 1785-1884. The earliest synonym, **edentulus** Bloch, 1785 was used from 1785-1908, but we cannot find any usage after 1908, except in a bare list of names by Angot, 1950.

The name **caballa** C & V, 1835, was used six times to 1927, but not thereafter and had no period of neglect but it has been relegated to the synonymy of **equula** Forskal.

Family Apogonidae

Apogon semiornatus Peters, 1876.

Apogon semiornatus Peters, 1876, 436. Bleeker, 1879. Mobius, 1880. Peters, 1876; and 1883. Sauvage, 1891. Smith, 1961, Smith and Smith, 1963.

Synonym: warreni Regan 1908, 251. Barnard, 1927, (copy). Smith 1949. Fourmanoir, 1954. Smith, 1955.

The original description, though brief, leaves no doubt about the the identity of this species, and that **warreni** Regan, 1908 is a synonym. With a 'period of neglect' from 1908-1961 **semiornatus** Peters

is a "nomen oblitum," and **warreni** Regan, 1908 is elevated to validity. This is a good illustration of one of the undesirable consequences of the statute, which validates a name given by an author who, with the most complete library in the world and unlimited resources at hand easily available to him, did not fulfil the fundamental requirements of nomenclatural procedure. Because of the position he occupied his verdict was accepted by a series of systematists in succession, until revision in 1961 established the validity of the senior synonym.

Family Monacanthidae

Cantherhines dumerili (Hollard, 1854)

Monacanthus dumerili Hollard 1845, 361. Bleeker and Pollen, 1875. Bleeker, 1879. Randall, 1964.

Synonyms:

- 1. howensis Ogilby, 1889. Waite, 1901. Gunther, 1910. Tanaka, 1915. Jordan and Hubbs, 1925. Fowler, 1928. Abe and Tomiyama, 1958. Kamohara, 1961.
- 2. carolae Jordan and McGregor 1898, 281. Gunther, 1910. Hiatt and Strasburg, 1960. Gosline, 1960.
- 3. albopunctatus Seale, 1901.
- 4. punctulatus Regan, 1902.
- 5. multimaculatus Regan, 1902.

With a 'period of neglect' from 1889-1964 **dumerili** Hollard despite irrefutable data advanced by Randall, 1964, becomes a 'nomen oblitum.' This is probably chiefly due to Gunther, who, 1870, 229 dismissed **dumerili** Hollard as a doubtful species, and from that time on until 1964 the name was used only twice, by Bleeker, in bare lists.

Family Gaterinidae

Gaterin flavomaculatus (Ehrenberg in C & V, 1830)

Diagramma flavomaculatum Ehrenberg in C & V, 1830. Ruppell, 1831: and 1852. Peters, 1855.

Diagramma faetela (non Forskal) Ruppell, 1835. Gunther, 1859. Klunzinger, 1870; and 1884; and numerous references to Fowler, 1935.

Gaterin flavomaculatus Smith, 1962.

Synonyms.

- 1. **reticulatum** Gunther, 1873 & used several times to Fourmanoir, 1957.
- 2. ornatum Kossman & Rauber 1877. Once.
- 3. saidae Steindachner, 1895. Once.
- 4. griseum (non C & V) Gilchrist & Thompson, 1911. Regan, 1919, to Barnard, 1927.
- 5. jayakari Boulenger, 1887. Once.
- 6. citronellus Smith, 1956; and 1961.
- 7. maculatus Fourmanoir, 1957.

The original name **flavomaculatum** was used until Gunther in 1859 quite arbitrarily placed it in the synonymy of **faetela** Forskal, and most workers on Red Sea fishes up to Fowler, 1935 followed his dictum. **Sciaena faetela** Forskal, has been shown to be unidentifiable, almost certainly not even a fish of this family (Smith, 1962). When in 1873 Gunther named a Zanzibar specimen of **flavomaculatus** as **reticulatus** n.sp. he could scarcely have taken into account the species he had synonymised with **faetela** in 1859. However by workers on fishes of the Western Indian Ocean and Australia, once again Gunther's verdict was accepted, and **reticulatus** was used at intervals up to Fourmanoir, 1957. The original type of **D.flavomaculatum**, 320mm in length, from the Red Sea, is in Berlin, in excellent condition. There was no excuse for Gunther's erection of a new species. Yet by force of the statute, the originally clearly defined **D.flavomaculatum** Ehrenberg, 1830, with a 'period of neglect' 1873-1962 is a "nomen oblitum," replaced by **D.reticulatum** Gunther, 1873, in whose erection Gunther twice ignored the fundamentals of systematics.

Family Pomadasyidae

Pomadasys commersonnii (Lacepede, 1802)

Labrus commersonnii Lacepede 1802, 3 431, PI 23, fig. 1. Shaw, 1802.

Pristipoma commersonnii C & V, 1830. Cantor, 1850. Poll, 1863. Bleeker, 1863. Guichenot, 1866. Sauvage, 1891. Pomadasys commersonnii Smith 1962, 257. Pl XV.

Synonyms:

- 1. microstomus Lacepede 1802, 4, 181, PI 34.
- 2. **punctata** Castelnau, 1861, 9. Gilchrist, 1902. Gilchrist and Thompson, 1917. Barnard, 1927?

3. operculare Playfair 1866, 24, Pl 4, fig. 1. Day, 1878, and at least fifteen other usages up to 1961.

The above represents a situation in nomenclature which was simple in resolution, but which becomes complex with the "nomen oblitum."

This fish whose proper name by fundamental criteria should be **P.commersonnii** Lacepede (the type from Madagascar), extends from India westwards to Madagascar, East and South Africa, almost to the Cape of Good Hope. When Gunther was compiling Vol. 1 of his "Catalogue of Fishes of the British Museum," in effect a revision of all known fishes, he had a number of specimens, ranging from the Red Sea to India, East Indies, China and Australia, identified as **P.hasta** Bloch. He apparently did not have a specimen of **P.commersonnii**, or if he had, he did not recognise it as different from **hasta**, although these two species are readily distinguishable at a glance as well as meristically. In fact, Gunther 1859, **1**, 289 erroneously relegated **commersonnii** Lacepede, (and **microstomus** Lacepede) to the synonymy of **hasta**.

Backed by the resources of the British Museum, Gunther's commanding position was such that nobody ventured to contradict this opinion. Shortly afterwards Gunther and Playfair jointly compiled their well known 'Fishes of Zanzibar,' published in 1866. As noted by them, while they did this together, they divided the authorship of new species, and there was described and named **P.operculare** Playfair, the type from Zanzibar. This was in reality none other than **P.commersonnii** Lacepede which Gunther had shortly before synonymised with **P.hasta** Bloch.

Meanwhile in 1858, during his visit to South Africa, the globe trotting Castelnau got from Natal a fish which he described in 1861 as Corvina punctata n.sp. Castelnau merely guessed at its taxonomic position, assessing it as a Sciaenid fish, which, from his description it could never be. Despite the fact that Castelnau's guite adequate description and data agree in every detail with P.commersonnii (well known in Natal), nobody appears to have recognised this (until 1949). In their compilation of the 'Fishes of Zanzibar' Playfair and Gunther handled and correctly identified so many species previously known from other parts of the Western Indian Ocean and beyond that they must have realised that many were widespread there. This makes it all the more difficult to understand how they could have described P.operculare (i.e. P.commersonnii) as a new species. Certainly Gunther should have recognised it as commersonnii. The renaming of a specimen of **P**.commersonnii as operculare n.sp. in the 'Fishes of Zanzibar' was, in fact, gross carelessness. The authors had the works of Lacepede and of C & V and must also have had Castelnau's 1861 paper. Had they read Castelnau's description of C.punctata they could not have failed to realise that their Zanzibar fish was identical.

The result of this was that from 1866 on nobody, except Sauvage, 1891, in an uncritical list, ventured to use the name **commersonnii** Lacepede, for this fish. Gunther had relegated this name to synonymy in **hasta** Bloch. Playfair in association with Gunther had a commanding position, Gunther's 'Catalogue' and their combined 'Fishes of Zanzibar' dominated ichthyology, certainly as far as the Western Indian Ocean was concerned. It is therefore not surprising that those who got specimens of **P.commersonnii**, among them Day, in India, used the name **operculare** Playfair, and thus contributed to the suppression of **commersonnii** and the general use of **operculare** Playfa. Until 1962 all workers in South Africa used **operculare** Playfair for this fish.

However, during a series of expeditions to the tropical Western Indian Ocean during 1946-1956 we found that it was so well known over a wide area there, that we came to suspect that this fish must have come to the notice of scientists long before Playfair's time. Very brief investigation showed that it was well known to Commerson in the 18th century, and that from his material it had been adequately described, illustrated and named by Lacepede, followed by C & V.

As indicated above, attention was initially diverted from **commersonnii** Lacepede, by Gunther's erroneous relegation. When this was followed soon after by the description, excellent illustration but unjustifiable new name **operculare** of Playfair, the combination virtually obliterated the names **commersonnii** Lacepede, and **punctata** Castelnau, the latter had in any case hardly been noticed.

It may be emphasised that the name **commersonnii** Lacepede. 1802 has indisputable fundamental priority, while the name most used during the past century was **operculare** Playfair, 1866. Both **commersonnii** Lacepede, 1802, and **punctata** Castelnau, 1861, have priority over **operculare**.

Under the statute of limitation, **commersonnii**, with a 'period of neglect' 1891-1962 becomes a ''nomen oblitum.'' This is not only unjust to Lacepede but a condonation of error by Gunther and of negligence by Playfair. However, in this case they do not altogether escape. The proximate once used synonym **microstomus** Lacepede, 1802, elevated to validity, becomes a ''nomen oblitum.'' The next junior synonym, **punctata** Castelnau, 1861, probably the most casual of all the names proposed for this fish, 'used'* several times over more than 50 years, escapes the statutory 'period of neglect' by the narrow margin of only 3 years, and becomes the valid name for the species.

It may further be noted that the investigation proving that **commersonnii** Lacepede, 1802 was the proper name of the species but for delay beyond my control would have been published in 1960. Had that happened, **commersonnii** Lacepede would have escaped the oblivion to which the statute would condemn it. Merely because publication was delayed to 1962 **commersonnii** becomes "oblitum."

In view of the circumstances outlined above, I intend to continue to use the name **commersonnii** for this species.

^{*}While Gilchrist, 1902 and Gilchrist and Thompson, 1917 accept and list Corvina punctata Castelnau, 1861 as a valid species in South Africa, they did so without knowledge of its true identity. In Barnard, 1927 the only reference to this species is on p.569, under the family Sciaenidae, where he states "Corvina punctata Castelnau, 1861 is not a Sciaenid fish at all, as it has three anal spines." Are all these "usages"?

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