#### RECONSTRUCTING PROTO POLYNESIAN FISH NAMES

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#### 1. INTRODUCTION

This paper has two aims. The first is to present a set of reconstructions of Proto Polynesian (PPN) and Proto Nuclear Polynesian (PNP) fish names. The second, more exploratory aim is to discuss some of the problems that arise in attempting to reconstruct a taxonomic semantic domain such as this. Krupa (this volume) points out that the terms which make up a taxonomy "are notable for their maximum contextual autonomy, precision and absence of such semantic features as ambiguity, polysemy, synonymy and homonymy". Their meanings "lack modality and expressivity". One would not expect, then, that particularly intractable problems of semantic reconstruction would arise. Nevertheless, the semantic features mentioned by Krupa do sometimes occur, and also semantic shifts, particularly between co-hyponyms and in relation to hyponymous and hypernymous relations between lexemes, and can make the establishment of a proto-meaning difficult.

### 2. SOURCES AND METHODOLOGY

Appendix 2 contains 147 fish names, 115 of which are reconstructed at PPN level, and most of the remainder at PNP level (see Appendix 1 for abbreviations of language names). The reconstructions have been made in most cases on the basis of the distribution of the reflexes, in the light of commonly accepted subgrouping hypotheses. Consequently some must be regarded with suspicion because of the possibilities of diffusion, particularly within the central area of Tonga, Samoa and the islands closest to them. In such cases I have included a query or comment. For example, fish names found only in Tuvaluan, Tokelauan and Pukapukan or in these languages plus Eastern Polynesian languages, may not warrant a PNP reconstruction. Four names are found in Tokelauan and Pukapukan in addition to Eastern Polynesian languages; they are #22 \*tupou(pou), #48 \*(w)ewe, #56 \*komuli and #63 \*pakewa (these numbers refer to Appendix 2). Five fish names found only in Pukapukan and Eastern Polynesian are #54 \*luhi, #68 \*kopelu, #85 \*taamule, #140 \*kookili and #143 \*tootara. These should be evaluated in the light of the discussion in Clark (1980) relating to Pukapukan borrowing from Eastern Polynesian languages. There is also evidence of diffusion of fish names between Kiribati, Tuvaluan, Tokelauan and Pukapukan, for

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example Kiribati *kamaa*, cf. Tokelauan, Tuvaluan, Pukapukan *kamai* 'rainbow runner' (#69); Kiribati *baniniua*, East Uvean, Tokelauan *pānanua* 'barracuda' (see note on #36); and see the discussion of *palu* in section 4. Fish names reconstructable only at Eastern Polynesian level are not included in this study unless they are of interest because of the above considerations or because of the particular semantic interest of the Maori reflex.

Naturally, most if not all the fish names discussed here are represented in the POLLEX files. However, this research aims at more precise species identifications than are contained in the POLLEX files, and has been carried out independently of POLLEX for the most part, although I have used the files as a source of fish names for further investigation. Some POLLEX reconstructions without species identifications, such as \*mamo 'fish, a small species' are not included here. Several names reconstructed at PNP level in POLLEX are taken to PPN level here.

As can be surmised from the number of reconstructions, Polynesian languages have an extensive and comprehensive nomenclature for fishes. Very full inventories of fish names accompanied by reliable scientific identifications have been assembled for a number of languages, including Easter Island (Randall & Cea Egaña 1984), East Uvean (Rensch 1983), Marquesan (260 names, including many binomials, Lavondès 1977), Niuatoputapu (over 200 names, including some binomials, Dye 1983), Rapa (Randall & Sinoto 1978), Cook Islands Maori (Bacquie 1977), and Tokelauan (my own research). The papers by Dye, Lavondès and Rensch include discussions of classificatory strategies in the languages they investigate, and Dye gives close attention to the lexical structure of the Niuatoputapu fish names. These studies reveal a high degree of formal and semantic correspondence in this domain across the languages of the group, which is attributable to a comparative uniformity in the ichthyological fauna of the tropical South Pacific.

A number of the studies referred to above were done by, or with the assistance of, ichthyologists. My own work on Tokelauan, and Rensch's (1983:59-60) on Uvean, involved working with experienced middle-aged fishermen, and referring to the colour photographs and drawings in several excellent books, in particular Bagnis et al. (1972) and Fourmanoir and Laboute (1976). In some cases actual specimens were compared with the photographs, in other cases the informants simply drew on their knowledge of the fishes.

Zoologists are inclined to adopt a cautious if not downright critical attitude to this procedure, which is adopted by many linguists and anthropologists in the field. In fact it is perfectly satisfactory for the kind of task undertaken here, for the following reasons. Firstly, many of the most important species are so very distinctive that confusion will not occur, for example the convict tang Acanthurus triostegus (PPN \*manini). Secondly, the species liable to confusion are likely to be extremely closely related, with the further possibility that they are associated with different habitats. As an example, the deepwater snapper Tropidinius zonatus 'flower snapper' has been identified in Tahiti by Bagnis et al. (1972), where it is called paru ta'ape; it has also been identified in Tuvalu, by the South Pacific Commission survey, with the name palu savane. In the Niuean survey, two Tropidinius species were caught, T. zonatus and T. argyrogrammicus, both with the English vernacular name 'flower snapper' and the Niuean name palu heahea. A possible confusion between these two species on the part of researcher or informant in another island community is not going to invalidate the reconstructed meaning for \*palu (+ modifier) of 'Tropidinius spp., including T. zonatus'. Moreover, species can be polymorphic, different habitats leading to the development of

markedly different ecotypes. There are even, as Diebold (1985:16-18) points out, attested cases in which such an ecotype has been mistakenly identified by ichthyologists as a distinct species.

Another source of difficulty which originates with the zoologists themselves is the constant revision of fish taxonomy and nomenclature, or the use of competing classifications, accompanied by a surprising laxity in the citing of scientific synonyms. Consequently scientific names encountered by the researcher sometimes turn out to be synonyms, and not the names of different species.

### 3. WHAT WE KNOW ABOUT PROTO POLYNESIAN FISH NAMES

Like the studies of individual languages on which I have drawn, this investigation is concerned with the names of *fishes*, in the contemporary folk and zoological understanding of that term. In Polynesian languages the life-form term which includes fishes, in most cases a reflex of PPN \*ika, refers also to several other marine organisms, including cetaceans, cephalopods and turtles. The decision not to extend the study to the names of these species was a purely practical one. Apart from the need to limit the scope of the study, there was also the fact that there are no detailed investigations of these other types of marine fauna on which the linguist can draw, comparable to the studies of fish names cited in this paper.

Although the present study does not claim to be exhaustive (as stated above, binomial terms are not included except in a few instances), there is reason to believe that the PPN reconstructions contained in Appendix 2 must represent a very substantial proportion of monomial fish terms in PPN. The present-day lexicons collected by Rensch in East Uvea, Dye in Niuatoputapu and myself in Tokelau contain approximately 130 monomial fish names. In all communities some names are innovations, and it is reasonable to suppose that some PPN etyma have not survived in any daughter language.

Of the 115 PPN reconstructions, 112 are primary lexemes.<sup>2</sup> If we examine the list of East Uvean fish names in Rensch (1983), we find that 74 primary lexemes reflect PPN etyma; 74 out of 112 would represent a retention rate of 66%. The comparable figures for Niuatoputapu (Dye 1983) are 68 retentions, or 60.7%. In my own data for Tokelauan there are 94 retentions, or 83.9% – an extraordinarily high figure. If we hypothesise that the Proto Polynesians, like their present-day descendants, used a vocabulary of about 130 monomial fish names, the retention rates are more plausible: 60% for East Uvean, 52.3% for Niuatoputapu, and 72.3% for the Tokelauan data<sup>3</sup> – close to the expected average retention rate of 70% for core vocabulary (Ross Clark, pers.comm.). It is not the practice to include fish species names in core vocabulary lists, and from this point of view the expected retention rate would be lower for fish names. On the other hand, the economic and cultural importance of fishing in Polynesian communities, especially atoll communities, suggests that

I am including in this category some lexemes which are analysable into head and modifier(s), but of which the head clearly does not denote a superordinate taxon, for example \*mata\*\* italing 'hammerhead shark'. On the other hand the binomials \*fai kili and \*fai manu are secondary lexemes, being hyponyms of \*fai 'stingray'.

The higher figure for Tokelauan could indicate either a more nearly complete inventory of local fish names than in the other two studies, or the more conservative nature of the Tokelauan lexicon.

fishing terms and fish names are good candidates for inclusion in core vocabulary lists for this region. Dye comments on the conservative nature of Niuatoputapu fish nomenclature, as borne out by the fact that "[t]axa from an earlier Samoic nomenclature persist, though Tongan is now the spoken language" (Dye 1983:265).

The picture that emerges from these 115 reconstructions is one of a community which, like the earlier Lapita culture as described in Walter (1989), exploited the full range of marine habitats with appropriate fishing techniques.<sup>4</sup> The lexicon shows a bias towards those species which are economically important, particularly in the degree of differentiation at the species level and in growth stage terms. For example, the small colourful reef fish which loom large in a tourist's impressions of the tropical underwater environment receive scant attention in the Proto Polynesian vocabulary: \*tifitifi for the numerous butterfly fishes and angelfishes (Chaetodontidae), \*mutu for the equally varied damselfishes (Pomacentridae). With these we may contrast the more elaborate terminologies for the jacks (Carangidae), tunas (Scombridae) or groupers (Serranidae). These issues are discussed further in the next section.

#### 4. SOME ISSUES IN THE SEMANTIC RECONSTRUCTION OF FISH NAMES

Speakers of Polynesian languages classify fishes on the basis of perceptual similarity for the most part. Linnaean taxonomy of fishes and other life forms is also based primarily on perceived morphological similarity. It is thus not surprising that the researcher of Polynesian fish names gets the impression of a high level of conformity between Polynesian and Linnaean categories, an impression supported by the discoveries of Bulmer (1967, 1974), Berlin et al. (1974) and others on the nature of folk taxonomies. In the discussion which follows, Polynesian fish taxonomy will be discussed as it relates to Linnaean taxonomy. This approach is not meant to imply an assumption of the superiority of Western scientific taxonomy (any more than is the presentation of the data in Appendix 2 in approximate phylogenetic order). Reference to a universally accessible naming system is necessary simply so that we can be clear which fishes we are talking about (within the above-mentioned limitations of that same naming system). English vernacular fish names exhibit so much dialectal variability as to be useless for our purposes; to take an example close to hand, the term 'snapper', generally associated with fishes of the family Lutjanidae, is in New Zealand applied to *Chrysophrys auratus*, a member of the family Sparidae.

Polynesian fish names can be divided into primary lexemes, usually consisting of one word (and also referred to as monomials), for example Tokelauan humu 'triggerfish' (Balistidae), and secondary lexemes (also called binomials), usually consisting of one of the primary terms plus a qualifying term, for example Tokelauan humu tuākau, literally 'triggerfish of the sea outside the lagoon' (Melichthys niger, black triggerfish). Many secondary lexemes could undoubtedly have been reconstructed at some level, but very few of these are included in this study.

A high proportion of Polynesian primary lexemes denote terminal taxa, that is to say they have no named hyponyms. However, this does not mean that they always denote single species. The fish taxonomies of individual Polynesian languages show the irregular

For a fuller discussion the reader is referred to Walter's paper and to the detailed description of present-day fishing ecology in Dye (1983).

relationship to scientific (Linnaean) classification which is characteristic of folk taxonomies in general (see Berlin et al. (1974) for a fuller discussion). If we take the primary lexemes as representing the 'folk-generic' or 'basic level' taxonomy, we find that these taxa do not always correspond to Linnaean genera. Instead, we have a system in which some primary lexemes correspond to the family, some to the genus, and some to species. Other terms correspond closely to English vernacular taxa embracing several families or even suborders, such as Tokelauan  $mag\bar{o}$ , 'shark', fai 'ray' or puhi 'eel'.

Of the 115 PPN reconstructions, it can be said with reasonable confidence that about a quarter correspond to scientific species, about a quarter to genera, and less than ten to higher level groupings. The remainder are indeterminate between family and genus, or between genus and species, for the reasons given above. This situation reflects the fact that the most striking morphological differences are often found at taxonomic levels other than the genus. It seems most likely that for any variety the folk generic term will be situated at the level of most striking perceptual salience, subject, however, to another important factor: the degree of economic importance of the species concerned. As several observers have commented (for example Dye 1983:260) species that are of little or no significance as a food source are not highly differentiated in the lexicon, for example PPN \*tifitifi, a term which embraces butterfly fishes (Chaetodontidae) and angelfishes (Zanclidae). Conversely, the economically very important families Scombridae and Carangidae have basic (monomial) nomenclature at the level of the biological species, with further differentiation based on growth stages.

It is usual to attribute a particular meaning to each reconstructed form, if this form-meaning association is found in the appropriate distribution in daughter languages. Often the distribution of reflexes and meanings (the 'semantic profile') allows a lexical reconstruction with a gloss of considerable generality, such as 'fish species', 'shark species', or 'kinship term'. It is convenient to reserve the term *semantic reconstruction* for the association of a form with a gloss of a much greater degree of specificity.<sup>5</sup> In the case of Proto Polynesian fish names, reconstructions with a high degree of reliability are easily made, with glosses of a rather general kind, such as 'parrotfish' or 'Labridae sp.'. However, semantic reconstructions that consist of precise identifications at the appropriate taxonomic level pose more difficulty, because of the nature of the data on which semantic reconstruction must be based. I will discuss a number of cases which pose interesting problems of semantic reconstruction.

Let us first examine the example of the family Lutjanidae. About seven names for Lutjanids can be reconstructed at PPN level (#72 - #81). Some of these can be precisely associated with particular species: \*muu, \*?utu, \*sawane and \*palu (in the latter case a group of species, of which more below). We are left with the names \*faŋamea, \*taŋa²u, \*sa(a)putu and most probably \*ta²iwa and \*taae²a. The last two are found in Niuatoputapu with a glottal stop which suggests a Tongan origin and thus justifies a PPN reconstruction.

The etymon  $*taga^{2}u$  has the reflexes given below, with identifications made by researchers in the language areas concerned ( $Lutjanus\ fulvus\$ and  $L.\ vaigiensis\$ are synonyms, the latter term being the one in current use.  $L.\ marginatus\$ is also probably a synonym for  $L.\ vaigiensis\$ ):

A slightly different and theoretically more rigorous distinction between these two terms is developed in Blust (1987a). Diebold (1985:57, fn.4) makes a similar point to Blust, his use of the expressions 'onomasiology' and 'semasiology' being analogous to Blust's use of 'lexical' and 'semantic'.

TON	tanga'u	Lutjanus fulvus and other Lutjanus spp.
SAM	tagau	L. marginatus
EUV	taga'u	L. fulvus, L. rufolimentus
TOK	tagau	L. vaigiensis
<b>TAH</b>	to'au	L. vaigiensis
TUA	tagau	L. bohar
CIM	tangau	L. bohar, L. fulvus and L. gibbus

Examining these data in isolation, it is impossible to determine whether the PPN term \*taŋa²u corresponded to a genus, a single species, as in Tokelauan, or a group of species within one genus, as in the case of Cook Islands Maori and Tongan. The species involved are all yellow or yellow-red, and this appears to be the unifying semantic feature of the group. Consideration of the whole set of names for species of genus Lutjanus is a more rewarding endeavour. If one plots the distribution of Polynesian names for Lutjanus species onto a tree diagram representing the Linnaean taxa cited in the several identifications (see Figure 1), one finds that their semantic range is either confined to a single species (as with \*ta²iwa, \*faŋamea and \*sawane), or embraces more than one species of the genus, as with \*taae²a, \*taŋa²u and \*sa(a)putu.

In addition to the identifications given in Figure 1, most of the fish names except for \*sawane also occur with glosses such as 'red snapper', 'general name for snapper', 'red emperor', or 'L. fulvus and other snapper spp.' L. kasmira is strikingly different in appearance to the other fishes under consideration, being blue with yellow stripes instead of reddish-gold. It is thus not surprising that the etymon \*sawane fails to participate in the semantic shifts or hypernymous widening that beset the other fish names in this set. It would seem that the other names between them differentiated the semantic field of reddish-yellow Lutjanus species. Of these, the ones of which the reflexes are identified most consistently with a single species are \*faŋamea 'L. bohar', and \*ta?iwa 'L.monostignus'. Beyond that it is impossible to specify, but we have at least established that the Proto Polynesians made a five-way distinction within the group of reddish-yellow Lutjanus species. By comparison with the Linnaean system there is lexical over-differentiation, as there is no single term corresponding to the genus. We might, however, interpret the semantic profiles of the five cognate sets as an indication that reddish-yellow Lutjanus species constituted some kind of covert category for Polynesian fishermen.

#### Lutjanus spp. L. kasmira L. monostignus L. gibbus L. rivulatus L. vaigiensis L. bohar \*ta?iwa \*taŋa<sup>?</sup>u \*taŋa?u \*taŋa?u \*taŋa?u \*sawane \*taaea \*taaea \*sa(a)putu \*faŋamea \*sa(a)putu

Note: In order to avoid complicating the diagram with a mass of language names, I have used the PPN forms of the fish names to indicate that a reflex of this name occurs in one or more languages with the identification given.

The genus Caranx constitutes another interesting case. Four species of this genus are particularly important as food fish, and they closely resemble one another in appearance: C. melampygus (Cuvier & Valenciennes), blue jack, C. ignobilis (Forskål), big-headed jack, C. lugubris (Poey), black jack, and C. sexfasciatus (Quoy & Gaimard), horse-eye jack. Six names can be reconstructed, five of them at PPN level (#52, #53, #55, #57 and #59), but they are not applied consistently to the same species; also, growth terms for Caranx species exist in all languages, and these same five words can occur at different levels in these subsystems. C. melampygus is one of the most commonly caught and highly esteemed food fishes, yet with surprising frequency its name is a local innovation. This may be due to the fact that it is generally assumed to be a younger C. ignobilis (ulua), as happens in Tokelau and Tahiti to my knowledge, and no doubt elsewhere. There is a widespread tendency for the names of juveniles to be local innovations. However there is one striking exception to this tendency: lupolupo has widespread distribution as a name for juvenile Caranx species. My Niuean informant grouped the four species together and gave the following growth terms for them:

lupolupo	baby
malausea	to 12 inches long
aheu	to 20 inches long
ulua	largest growth stage
uluakata	'nickname' for very large Caranx

All of these names except malausea occur for Caranx sp. in other languages.

Tokelauan informants provided the schematic representation of the growth stages of *Caranx* shown in Figure 2. It is noteworthy that the degree of lexical differentiation varies from one life-stage to another, but that only three species in all appear to be recognised here.

Taken together, the facts presented above, and in particular the widespread occurrence of *lupolupo* as a term for juveniles of all species, and of *ulua* as a term for mature or very large specimens, constitute good evidence for a covert superordinate category corresponding to the genus *Caranx*.

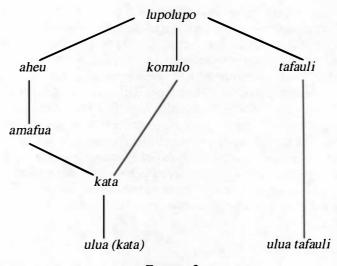


FIGURE 2

Against this background, certain examples stand out which are not in accord with the Linnaean system of categorisation. On the one hand, related species may be assigned to different classifications because of different functional criteria. Tokelauans use the term  $it\bar{u}$   $k\bar{a}iga$  (literally 'side of the family') for groupings of species which are held to be related. The Caranx varietes aheu, alaala and tafauli are assigned to one  $it\bar{u}$   $k\bar{a}iga$  and the Lutjanidae and Lethrinidae varieties fagamea, filoa, taiva, tāea, tagau and haputu are assigned to another. However, within the family Scombridae, also an economically important one, tavatava 'dogtooth tuna' is not assigned to the same  $it\bar{u}$   $k\bar{a}iga$  by my informant as the pelagic kakahi 'yellow-fin tuna', because tavatava is a 'reef fish'. Nor is atu 'skipjack tuna' included with either of these, because it is one of the ika e hula i  $v\bar{a}i$  tauhaga 'fish which appear at certain times of the year'. Yet the morphological similarities between these three species are at least as salient as in the case of the Caranx or Lutjanus species discussed above.

On the other hand, a basic-level fish name may be applied to two or more species from different families or even suborders of fishes, in a categorisation based on habitat or behavioural patterns. An example of this is PPN \*talitali?uli, widely reflected as the term for remora (Echeneis naucrates, family Echeneidae) but frequently applied also to pilot fish (Naucrates ductor, family Scombridae). These are Perciform fish of different families and markedly different appearance, but united in their close association with sharks. For Tongan teliteli'uli Churchward (1959) gives the gloss 'pilot fish'. Dye (1983) includes the same form (identifiable as a Tongan word from its phonological form) in his list of Niuatoputapu fishes, but with the gloss 'remora'. The entry for talitaliuli in the Tokelau dictionary (Simona et al. 1986) reads "Fish parasites which include the pilot fish (Naucrates ductor), cleaner-fish or paradise fish (Labroides dimidiatus) and the teletelevakaniu or suckerfish (Echeneis naucrates)".

Let us also consider the fish name \*oo (#147), of which a number of reflexes refer to the fry of the genus Siganus. I suspect, however, that this name was used for a number of small schooling species, on the basis of size, behavioural characteristics, and function as baitfish, and that it is impossible to suggest a precise identification for the protoform. The situation in Tokelau is typical. There, o are tiny, whitebait-sized fish which form dense, spherical schools outside the reef during the dark phase of the moon. They are a food source for several varieties of pelagic fish, and their appearance is associated with the presence of skipjack. Quantities of fresh, dead  $\bar{o}$  can be used for chumming during pearl-shell poling for skipjack. A highly valued food fish in themselves, they are caught in a fine-meshed net and eaten whole, either fried, or sun-dried and subsequently cooked in coconut cream. An ichthyologist has recently identified specimens of Tokelauan ō as damselfish, Lepidozygus tapeinosoma Bleeker (Gillett 1990), and has also identified Tokelauan lōtala as the fry of the genus Siganus, which occur in large aggregations and are more mobile than  $\bar{o}$  (Gillett 1985, Table 3). A technical fisheries study of tuna baitfish<sup>6</sup> contains a suggestive description of fusiliers: "Fusiliers...are taken in greatest abundance near reefs and are important baitfish in many areas. They are robust and highly regarded as bait. As with cardinals, careful dimming of the light is often necessary to induce them to rise off the bottom" (Lewis et al. 1983). Kennedy (1931) describes Tuvaluan  $\bar{o}$  as silver and bluish-green in colour; however Gillett's

<sup>6 &</sup>quot;Tuna baitfish are a diverse group of small schooling fishes that are used as live bait in pole-and-line fisheries for skip jack and other tunas in most tropical and subtropical areas" (Lewis et al. 1983:1).

own enquiries in Tuvalu elicited a description of a small red baitfish. Pukapukan  $w\bar{o}$  have the same behavioural characteristics as Tokelauan  $\bar{o}$ .

My final comments concern a fish name which is the subject of another paper (Hooper 1991). In this case more extensive extralinguistic information of a specialist kind is necessary to prevent a misinterpretation of the linguistic facts. The name \*palu is reflected in many languages with polysemous reference to a number of fish species which inhabit very deep water and are caught on long-lines. Only some of these species are phylogenetically related to one another. Berlin, quoted in Lakoff (1987:37) mentions the occurrence in folk taxonomies of "functional basic-level categorization, which adds in factors to do with culture and specialised training". Lakoff himself calls such factors 'interactional' properties. It seems likely that \*palu in Polynesian is an example of a category which is defined by an interactional property: the fishing strategies devised to exploit the possibilities of a particular habitat, 400 to 500 metres below the surface of the sea.

It should be emphasised that palu is not what Cecil Brown (1984:10) calls a "special purpose folk category", that is, a term such as 'farm animal' or 'desert shrub', which groups together independently named species under an ecological label. In other words, palu is not simply equivalent to 'deep-sea fish'. Polynesian languages have such terms, for example the Tokelauan categories referred to above, as well as Tokelauan ika o te namo 'lagoon fish', or ika o te moana 'ocean fish', but species included in those categories have their own names.

Reflexes of \*palu occur as primary lexemes and as the first term in secondary lexemes. The difference between the two is in general associated with two different fishing strategies. As a primary lexeme palu refers to the oilfish Ruvettus pretiosus (family Gempylidae). Ruvettus fishing is done at night, in deep water some distance from the reef. Not all Polynesian communities have access to a marine environment suitable for the specialised techniques involved. As depths of around 400 metres at some distance from the shore provide the best catches, sheltered lee shore fishing grounds are essential. The techniques and equipment employed, including the distinctive large, triangular wooden hooks, have been described in some detail in Kennedy (1931), Nordhoff (1930), Beaglehole and Beaglehole (1938) and Bacquie (1977). The oilfish, or more aptly, the castor-oil fish, is a notable species on account of its large size and horny scales, and also the quality of its flesh, which is an opaque pure white and permeated with a fine oil which has a laxative effect. This fish may also on occasion be referred to by a binomial, such as Tokelauan and Niuatoputapu palu pō 'night palu'.

Daytime fishing of comparable depths, but closer to the reef edge, produces a number of species referred to by binomials. In Tokelau this type of fishing is known as makomako, and in Pukapuka as tuku moana. The description given in Beaglehole and Beaglehole (1938:65) tallies closely with Tokelauan accounts of the technique: "Tuku moana fishing is deep-sea hand-line fishing up to about 300 fathoms and involves the use of a special composite fishing apparatus (taumakomako) consisting of four or more hooks fixed by spreaders to a single line".

The group of palu which are caught by the daytime technique consists primarily of the four deepwater snappers listed in #81: Aphareus furcatus 'small toothed jobfish', Etelis carbunculus 'squirrel fish snapper' or 'short-tailed red snapper', Pristipomoides argyrogrammicus 'big-eyed snapper', and Tropidinius zonatus 'flower snapper'. The four species have in common a pink to yellow colour range and a maximum length of three feet.

Certain other deepwater species have the name palu in some languages, for example Tokelauan palu magō, Tuvaluan palu magō, Pukapukan palu magō 'deep-sea shark'; Tuvaluan palu paatuki, Tahitian palu hoa 'orange rock cod Epinephelus truncatus'. In addition, numerous binomials are recorded with glosses like 'species of deep-water fish'. Beaglehole and Beaglehole (1938:29) give eighteen kinds of palu. In many cases the attributive term denotes a type of fish which the deepwater variety presumably resembles, for example palu yue 'giant balloon fish', cf. yue 'balloon fish'. None of these secondary lexemes is sufficiently widely distributed to warrant a PPN reconstruction.

The name palu thus embraces a major semantic discontinuty. The distribution of semantic reflexes taken in isolation from other considerations would allow us to reconstruct the meanings 'oilfish' and 'deep sea snapper species' for \*palu. However, close examination of extralinguistic factors, in particular the archaeological evidence, reveals the first of these identifications to be highly problematic (see Hooper (1991) for a discussion of these factors). We must allow for the possibility of independent semantic shift in different languages as the range of possible referents of palu was extended to accommodate the knowledge and exploitation of additional deepwater species. Ruvettus fishing was most probably a development and extension of deepwater shark fishing techniques, and the Ruvettus hook a modification of the large wooden shark hook, adapted to the mouth shape of the Ruvettus and its characteristic method of taking the bait (Anell 1955:235-237). Diffusion of the particular technique would have been accompanied by diffusion of the name of the fish.

Given the likelihood that *Ruvettus* was a late addition to the category *palu*, we can make two observations of linguistic interest. The first concerns strategies for naming novel species. Lexical innovations in fish nomenclature are common at all levels of the Polynesian language family. The *Ruvettus* is a most singular creature and on the grounds of its perceptual salience might seem to have warranted a name of its own. It is something of a puzzle that Polynesian speakers chose to lump it with the other deepwater species known as *palu*.<sup>7</sup>

The second observation concerns the nature of the category that resulted. In a study of salmonid fish nomenclature in Indo-European, A.R. Diebold (1985:4) comments that "when a...semantic domain is disturbed by introduction of a conceptual novelty, the associated lexically structured word-fields undergo perturbations". We can surmise that the history of the word palu has been associated with such perturbations. It seems likely that the original referent of the term was the group of deepwater snappers found in so many PN languages with this name. As such it was no different from other folk generics that denote a group of related species, such as humu 'triggerfish' and the various secondary lexemes which incorporate this term. As noted above, the four snapper species are similar in appearance and quite closely related phylogenetically.

The initial 'perturbations' in this lexical domain occurred with the tendency to bestow the name *palu* upon other fish caught with the same techniques and in a similar habitat; it was at this point that interactional factors replaced perceptual similarity as the defining criteria for the category *palu*.

Eastern Polynesian communities which fish for *Ruvettus* do not use the name *palu*, which is replaced by an innovation within EP, the form \*kuravena. Note also the recent Easter Island innovation, konsome, a term "taking its origin from the consommé made from the flesh of *Ruvettus*" (Randall & Cea Egaña 1984: 6-7).

A further perturbation must have occurred with the incorporation of the *Ruvettus* into the category. In languages with the full range of meanings for *palu*, the primary referent of the monomial term is *Ruvettus pretiosus*. In the absence of a disambiguating context, a reference to *palu* will be interpreted as meaning 'oilfish'. Both the effort and skill involved in the method of angling, and the size and grandeur of the catch, ensure that *Ruvettus* is *palu* par excellence. Yet *Ruvettus* has few morphological features in common with the snapper varieties also known as *palu*.

It is generally assumed that focal members of a category have more of the features associated with that category than do more peripheral members. So the sparrow is a better example of the category 'bird' than is the emu, both because of its size and its ability to fly. However in the case of *palu* we have a folk zoological category of which the best exemplar shares fewer distinguishing morphological features with other members of the category than those more peripheral members share with one another. Only when we recognise the interactional nature of the category, and the fact that *Ruvettus* is the most valued product of the type of interaction concerned, long-line deep-sea fishing, can we understand its focal status.

#### APPENDIX 1: KEY TO LANGUAGE NAME ABBREVIATIONS

ANU	Anuta	PEP	Proto Eastern Polynesian
CIM	Cook Islands Maori	PIL	Pileni
EAS	Easter Island (Rapanui)	PNP	Proto Nuclear Polynesian
EFU	East Futunan	POC	Proto Oceanic
EUV	East Uvean	PPN	Proto Polynesian
FIJ	Fijian	PRO	Proto Remote Oceanic
HAW	Hawaiian	<b>PSO</b>	Proto Samoic-Outlier
<b>ISLV</b>	Isles sous le vent	PUK	Pukapukan
KAP	Kapingamaringi	RAP	Rapan
KIR	Kiribati	REN	Rennellese
LUA	Luangiua	SAM	Samoan
MAN	Mangaia	SIK	Sikaiana
MAO	New Zealand Maori	<b>TAH</b>	Tahitian
<b>MEF</b>	Mele Fila	TIK	Tikopian
MQS	Marquesan	TOK	Tokelauan
MVA	Mangarevan	TON	Tongan
NIU	Niuean	TAU	Taumako
NTP	Niuatoputapu	TUA	Tuamotuan
NUK	Nukuoro	TUV	Tuvaluan
PAN	Proto Austronesian	WFU	West Futunan
<b>PCE</b>	Proto Central Eastern Polynesian	WUV	West Uvean
PCP	Proto Central Pacific		

#### APPENDIX 2: THE RECONSTRUCTIONS

Note: For ease of reference I have followed the convention of presenting the fish names in approximate phylogenetic order. The individual reflexes used to support the reconstructions

are given in the orthography of the sources, whereas the reconstructions themselves employ a consistent orthography, including the use of double vowels to indicate a long vowel and IPA symbols for glottal stop and the velar nasal. Where there is no gloss beside a fish name it can be taken to be consistent with the gloss I have given for the protoform. The Proto Austronesian (PAN) reconstructions cited are from Blust (1971, 1972c, 1980a, and 1983-84a). Proto Oceanic (POC), Proto Remote Oceanic (PRO) and Proto Central Pacific (PCP) reconstructions are from Walter (1989) or Geraghty (this volume), as indicated. In some examples I have made one minor change in Geraghty's orthography, in using /n/ for his /g/.

Data from Geraghty's paper has allowed the reconstruction of a number of PPN etyma which were not included in my original draft. These are #14, 15, 16, 17, 58, 71, 94 and 123.

#### CARCHARHINIDAE and SPHYRNIDAE: SHARKS

#1 PPN \*magoo 'general term for shark spp.'

PCP \*man(e,o)o (Geraghty)

NIU mangoo, SAM, TOK, TUV magō, PUK, NUK mangō, KAP mongohenua, LUA magoo, REN, TIK mangoo, MEF magoo, WFU mago, WUVmangō, EAS māngo, HAW mano, MQS mako, mokō (North), mano, monō (South), TAH, RAP ma'o, CIM, MAO mangō

This is the general term for shark species in the languages in which it occurs. In Easter Island it is used for Carcharhinidae (requiem sharks), Sphyrnidae (hammerhead sharks), and Squalidae (dogfish sharks), but other names are used for Lamnidae, Alopiidae and Rhincodontidae spp. (Randall & Cea Egaña 1984). The short final /o/ of the Tahitian and Marquesan reflexes is an irregular development, seen also in KAP mongohenua. Two specific terms worth noting are TOK moko haa 'Isurus glaucus (Müller & Henle), mako shark' and KAP mogo lewe 'Carcharhinus longimanus (Poey), white-tipped shark' (cf. PPN \*moko 'lizard' as a possible source of euphemism in these expressions).

### #2 PPN \*tanifa 'shark sp.'

PCP \*taniva 'Galeocerdo tiger shark' (Geraghty)

TON tenifa 'very fierce k.o. shark', NTP tenifa 'whale shark', NIU tenifa 'general name for shark', WUV tanifa 'espèce de requin, Carcharhinidae', SAM tanifa 'large man-eating shark', TUV taanifa 'Saurida sp., lizard fish', PUK taniwa 'a fierce shark' (Beaglehole & Beaglehole n.d.:1210), 'deep sea, with sharp teeth' (Beaglehole & Beaglehole 1938), TIK tanipa 'type of shark, or ocean monster', MQS tānifa 'Lutjanus monostignus', MAO taniwha 'shark or any formidable marine creature', mangō taniwha 'white pointer shark'

The Tuvaluan and Marquesan identifications are hard to explain, but for the latter cf. PNP taaiwa.

#3 PPN \*mata?italina 'Sphyrna spp., hammerhead shark'

PCP \*mata<sup>?</sup>italina (Geraghty)

TON matai, NIU matei, EUV mata 'i taliga, TOK mata i taliga, TUV maitai taliga, LUA memeakalina, REN mata 'taginga, TIK, ANU matai taringa

An obviously descriptive name ('eyes on ears'). The term has been lost in Eastern Polynesian, which is surprising in view of its aptness.

### #4 PPN \*naiufi 'shark sp.'

PCP \*-ufi 'k.o. large shark' (Geraghty)

TON ('anga)neiufi, SAM naiufi 'k.o. shark', TIK naifi 'type of shark (unid.)', EAS niūhi 'Carcharodon carcharias, mackerel shark', MQS niuhi 'Carcharhinidae sp.', TUA niuhi 'very large shark'

Limited distribution but geographically well dispersed; the Tuamotuan identification is cited from Rensch (1988:158).

### #5 PPN \*?aso 'shark sp.'

PCP \*?aso 'k.o. large shark' (Geraghty)

TON 'aho 'k.o. shark', SAM aso 'white-tipped shark', TOK aho 'a huge, clumsy, grey deep-sea fish about twenty feet long...probably belongs to the shark family but is not as fierce', NUK aho 'white-tipped shark', MAO aho(aho) 'a fish'

### DASYATIDAE, MYLIOBATIDAE, MOBULIDAE: RAYS

#6 PPN \*fai 'Himantura spp., stingray, general term'

POC \*paRi, PAN \*paRi, PCP \*vai (Geraghty)

TON, EUV, EFU, SAM, TOK, TUV fai, PUK wai, KAP hai, LUA ha'ii, REN hai, TIK, ANU, PIL, WFU, WUV, MEF fai, HAW, MQS hai, TAH fai, MAO whai

In addition to the folk generic term, there are two widely distributed secondary lexemes, given below.

### #7 PPN \*fai manu 'Aetobatis narinari (Euphrasen), eagle ray'

PCP \*vaimanu, PEO \*vaRimanu (Geraghty)

TON, NTP, EUV, EFU, TUV fai manu, KAP hai manu 'bar ray', cf. hai loto gelegele 'eagle ray', TAH fai manu, MAO whai manu

Compare PPN \*manu 'bird'. Note also SAM faipe'a, TAU, PIL hai peka and TIK fai peka 'eagle ray'; cf. peka 'bat'. Geraghty (this volume) tentatively reconstructs PCP \*vaibekwa, but comments that "the chances of parallel development of the form...are very high". However, this caveat also applies to \*faimanu.

### #8 PPN \*fai kili 'sandpaper ray'

TON, NTP, EUV, TOK, TUV fai kili, TAU hai kili

Another descriptive term. The rough skin of this species is put to a number of uses. Rensch (1983) identifies EUV fai kili as Taeniura melanospila (Bleeker); cf. PPN \*kili 'file', a more likely qualifier than \*kili 'skin' although either is plausible.

#### #9 PNP \*faafaalua, 'Manta alfredi (Macleay), manta ray'

TOK fāfālua 'A. narinari, eagle ray', PUK wāwālua, HAW hāhālua, MQS hāhā'ua, TAH fāfāpiti, TUA fafarua, CIM ārua 'large species of voracious fish' (Savage 1962).

All are glossed 'manta ray' except where otherwise indicated. The lack of correspondence in the Tahitian form is due to the replacement of *rua* by *piti* as the word for 'two'. The semantic shift in the Tokelauan form is puzzling; the Tokelauan word for manta ray is *lautiapua*. Note also WFU *fafataro* (no semantic information).

#### **ALBULIDAE**

#10 PPN \*kiokio 'Albula vulpes (Linnaeus), bonefish'

PCP \*k(i,u)o (Geraghty)

TON, NTP kiokio, EUV kiokio 'Elagatis bipinnulatus, rainbow runner', TOK, TUV, PUK kiokio, TIK kiokio 'Chanos chanos', TAU kiokio 'Harengula abbreviata, southern herring', HAW 'o'io, MQS kiokio, TAH 'io'io, TUA, CIM kiokio

All reflexes are glossed A. vulpes except where indicated. The TAU kiokio is a member of the order Clupeiform, to which Albulidae also belong. In the case of the East Uvean form, the semantic shift is quite marked.

#### **CHANIDAE**

#11 PPN \*?awa 'Chanos chanos (Forskål), milkfish or salmon herring'

PAN \*qawa? 'milkfish', POC \*qawa (Walter 1989), PCP \*?awa (Geraghty)

TON 'ava, EUV ava 'Mugil cephalus, mullet sp., also Polynemidae sp.', avaava 'Megalops cyprinoides, tropical tarpon', SAM, TOK, TUV, PUK ava, HAW awa, TAH, CIM ava, Tubuai avaava

Again, marked semantic shift in the East Uvean form, otherwise perfect semantic correspondence.

### MURAENIDAE, CONGRIDAE: EELS

#12 PPN \*toke 'sea eel'

TON, NTP, NIU toke, EUV toke 'generic term for morays', SAM to'e, EAS toke 'Brotula multibarbata (Temminck & Schlegel)', HAW ko'e 'worm of any kind', TAH to'e 'earthworm, intestinal worm', MAO toke 'a fish'

#13 PNP \*pusi 'sea eel, Gymnothorax spp.'

PCP \*p(i,u)si (Geraghty)

EFU puhi 'sea snake, sea eel, conger', SAM pusi 'general name of moray eels', TOK puhi 'general name for eels', TUV pusi 'Gymnothorax' (Zann 1980), PUK pui 'Echidna zebra', TIK pusi 'Gymnothorax sp., grey brown reef eel', WUV pusi 'sorte d'anguille de mer', EAS puhi (hakanonga) 'G. bathyphilus (Randall & McCosker)', HAW, MQS, TAH puhi, RAP puhi 'Anguilla sp., freshwater eel', CIM pu'i 'a species of large sea eel' (Savage 1962), MAO puhi 'a very large variety of eel' (the same as hao 'mud eel').

A number of secondary lexemes are recorded for Tokelauan, Hawaiian and Tahitian. In addition to the Easter Island form cited above, Randall and Cea Egaña (1984) cite several secondary lexemes in which *puhi* is a qualifier. The Pukapukan form is presumably a borrowing from Cook Islands Maori.

#### **ANGUILLIDAE**

#14 PPN \*tuna 'Anguilla spp., freshwater eel'

PCP \*tuna (Geraghty)

TON tuna 'k.o. eel including tuna tahi (sea eel) and tuna vai (freshwater eel)', NIU tuna 'freshwater eel', EUV, EFU, SAM tuna 'freshwater eel', PUK tuna wenua 'freshwater eel'

(lit. 'land eel'), TIK tuna 'eel, gen. term applied especially to lake eels' (Firth 1985), TAU tuna laulau hau 'Anguilla reinhardti, freshwater eel', PIL tuna 'A. reinhardti' (both these from Lincoln n.d.b), WFU tuna 'freshwater eel', HAW kuna 'variety of freshwater eel', TAH tuna 'freshwater eel' (Davies 1851 only; the modern term is puhi pape), CIM tuna 'eel' (general term)

Compare FIJ duna 'freshwater eel'. The lack of reflexes from atoll languages can be explained by the lack of a freshwater habitat in those places. Note however, TAU and PIL tuna (laulau hau) in Lincoln's data.

#### **CLUPEIDAE**

#15 PPN \*nifa 'Sardinella sp.'

PCP \*niva (Geraghty)

EUV nifa 'k.o. sardine', MQS nifa 'Sardinella marquisensis', TAH nifa 'the name of a spotted fish' (Davies 1851), TUA nifa 'juvenile Albula sp.'

#16 PPN \*sasaa 'Spratelloides sp.'

PCP \*cacā (Geraghty)

TON hahā 'anchovy' (Rensch 1983), EUV hahā (no identification), TOK hahā 'Spratelloides delicatulus', TIK sā 'small fish of anchovy type'

#17 PPN \*saraa 'small schooling fish, Clupeiform sp.'

PCP \*sarā (Geraghty)

TON hā 'k.o. fish: very small, like whitebait; found in shoals' (Churchward 1959), NUK salā 'flying fish', LUA salā 'small blue fish', SIK salā 'k.o. fish'

#18 PPN \*sali(i) 'small fish, possibly Atherinidae sp.'

TON helī 'small k.o. fish', SAM salī 'small fish (Atherina sp.), k.o. sardine' (Milner 1966), TUV sali 'several species of Clupids' (Zann 1980), REN sagi

Geraghty (this volume) regards this and #17 as PPN doublets.

#### **HEMIRAMPHIDAE**

**#19 PPN** \*ise 'halfbeak spp., including Hyporhamphus acutus (Günther)' PCP \*ije (Geraghty)

TON, EUV *ihe*, SAM *ise*, TOK *ihe*, TUV *ise*, PUK *ie*, *ieie*, NUK *ise*, KAP *iha*, TIK *ise* 'garfish Belonidae or ?? small crocodile needlefish *Tylosurus crocodilis*. Taken by net on reef, sometimes in very large numbers' (Firth 1985), EAS *ihe*, HAW *iheihe*, MAO *ihe* 'H. *intermedius*'; note also *iheihe*, another name for *hakuraa* 'Southern whale'.

Again, the Pukapukan form appears to be a borrowing from Cook Islands Maori, although I have not as yet obtained a Cook Islands Maori reflex. However Kevin Salisbury (pers.comm.) says that sporadic loss of Pukapukan /y/ intervocalically is not uncommon. The description in Firth sounds much more like *Hyporhampus acutus* than the two species mentioned by him.

#### BELONIDAE, AULOSTOMIDAE, FISTULARIDAE

These families are considered together because the Polynesian names show some semantic shifts from one family to another, doubtless because of the close physical resemblances.

### #20 PPN \*haku 'garfish of family Belonidae'

PCP \*(c,s)aku (Geraghty)

TON haku 'Belonidae spp.', EUV haku 'Tylosurus crocodilis, Strongylura leiura, S. urvili', SAM a'u 'Tylosurus sp.', TOK aku 'needlefish, about 2 feet long', PUK aku 'Tylosurus sp.', akuaku 'Platybelone sp.', KAP agu 'large needlefish', REN, TIK aku 'general term for needlefish and garfish', WFU aku (Fakamuria n.d.), WUV aku '?aiguillette, Hémiramphidé', EAS ihe aku 'Platybelone argalus platyra (Bennett), to 40 cm. in length', HAW auau 'Tylosurus gigantis' (Jordan & Seale 1906), MQS aku 'general term for needlefish and garfish', TAH a'ua'u 'Platybelone sp.', TUA, CIM aku 'general term for needlefish and garfish'

The Hawaiian form is probably a'ua'u. The phonological evidence justifies the reconstruction of \*haku, as distinct from \*saku, which Walsh and Biggs (1966) proposed for both garfish and swordfish species (see #134). The development of these doublets appears to be a PPN innovation (cf. Proto Fijian \*saku 'Belonidae' and \*saku(laya) 'sailfish').

### #21 PPN \*taotao 'Aulostomus and Fistularia spp.'

TON, NTP tootao 'Aulostomus sp.', TOK taotao 'Fistularia petimba (Lacépède), flutefish', PUK taotaoama 'F. petimba', SAM taotao 'F. petimba', tao tito, 'Aulostomus sp.', TIK taotaoama 'a mullet', PIL totoama 'Tylosurus sp.', TAU (temaele) totoama 'Tylosurus sp.', WFU totoama (no semantic information), EAS toto amo 'A. chinensis (Linnaeus)', MQS koko'o'ama (Hiva Oa), ko'oama (Fatu Hiva) 'A. chinensis'

Compare \*tao 'spear'. The distribution of forms containing the segment -ama is not readily explicable. Clerk (1981:162) comments that Mangaians regard Aulostomidae and Fistularidae as a single category.

## #22 PNP \*tupou(pou) 'Aulostomus valentini (Bleeker), trumpet fish'

TOK tupoupou, PUK tūpoupou, HAW kūpoupou 'Cheilio inermis, sharp-nosed wrasse', TAH (aupapa tohe) tupou, TUA (kakavere) tupoupou, RAP tupou

Compare \*tuupou 'bow, stoop'. Only the Hawaiian form shows a semantic discrepancy, which is wide indeed. Although C. inermis is more thin and pointed than other wrasses, it shows little resemblance to A. valentini. Related to the first morpheme in the Tuamotuan form above are the following: TUA tātāvere, totoviri, TAH 'a'avere 'Tylosurus crocodilis', RAP tatavere'Fistularia petimba'.

#### **EXOCOETIDAE**

### #23 PPN \*sasawe 'Exocoetidae, flying fish sp.'

NIU hahave 'large flying fish', EFU sasave 'poisson volant', SAM save 'a young flying fish' (Pratt 1878), TOK hahave 'Cypselurus simus', TUV ssave, hahave 'Exocoetus spp.', NUK ssave, KAP tawe, LUA save, REN sasabe, TIK, ANU save, TAU, PIL ave, WFU save, WUV sasave 'petit poisson volant', EAS hahāve 'Exocoetidae'

All glossed 'flying fish'. The only Eastern Polynesian language to have a reflex of this word is Easter Island, where it is the general term for flying fish; Randall and Cea Egaña (1984:8) list three species. Phonetic correspondences are regular, except for Kapingamaringi where \*/s/ > /t/.

#24 PPN \*maalolo 'flying fish spp., including Cypselurus simus'

TON mālolo 'flying fish sp.', EUV mālolo 'generic term for flying fishes', SAM, TOK, TUV, PUK mālolo, HAW mālolo, MQS ma'o'o, TAH, RAP, TUA mārara, CIM, MAN māroro, MAO maaroro

#25 PPN \*sipa 'young flying fish'

TON sipesipa 'k.o. fish, small, silvery, slimy', NIU hipa 'young flying fish', EUV sipa 'planer en l'air', SAM sipa, TOK hipa, TUV sipa, PUK yipa, KAP hiba, TIK sipa, CIM tipa 'young māroro' (Bacquie 1977), MAN ko'ipa 'small flying fish'

It seems likely that \*maaroro was the original general term for flying fish, retained even in Maori, and that \*sasawe was a PPN specific term, lost in Tongan, Pukapukan and Eastern Polynesian and generalised elsewhere. Note the irregular correspondence in the initial consonant of the Cook Islands Maori form.

#### HOLOCENTRIDAE

**#26 PPN \*malau** 'general term for a number of fishes of the genera *Holocentrus*, *Adioryx*, *Myripristis* and *Flammeo*, soldierfishes and squirrel fishes' PCP \*ma(r,l)au (Geraghty)

TON, NTP, NIU, EUV, EFU, SAM, TOK, TUV, PUK, NUK, KAP malau, REN magau 'Holocentrus sp.', TIK marau 'Holocentrus spinifer (Forskål)', ANU te marau, WFU marau 'Adioryx caudimaculatus and others' (Fakamuria n.d.), marauroa, EAS mārau, MQS ma'au, me'au 'Myripristis spp.', TAH marau (Davies 1851 only, 'name of a small fish')

Note the irregular long vowel in the Easter Island reflex. Many sources list a number of binomials, but only the following one justifies a tentative reconstruction.

#27 PSO \*malauloa 'Adioryx sp., possibly Adioryx and amanensis (Day), red squirrel fish'

SAM, TOK, TUV, PUK *malauloa*, WFU *marauroa* (no semantic information) Both Tokelauan and Pukapukan informants made the identification A. andamanensis.

#28 PPN \*talakihi, PNP \*talatala 'soldier or squirrel fish spp.'

TON telekihi 'k.o. fish', NTP telekihi 'Adioryx sp.', talataha 'squirrel fish sp.', EUV telekihi 'Adioryx spp.', talatahi 'Adioryx furcatus (Günther)', TOK talatala 'violet soldier fish (Myripristis violaceus)', TUV tala(kisi) 'Holocentrus', NUK daladala 'squirrel fish spp.', MQS ta'akihi 'Gnathodentex aureolineatus, golden-lined sea perch', ta'ata'a 'Adioryx caudimaculatus and Flammeo spp.', TUA tarakihi 'fish with very sharp dangerous spines' (Stimson 1964), CIM taraki'i 'G. aureolineatus', MAO tarakihi 'Nemadactylus macropterus, jackass fish'

The phonological shape of the Niuatoputapu reflex *telekihi* (as opposed to *talataha*) suggests a Tongan origin, so we can assume the correctness of the PPN identification. Note that *tala* means 'spiny' and that a descriptive origin for the Eastern Polynesian \*tarakihi forms cannot be ruled out. The two species involved do not resemble soldier or squirrel fishes, and although not markedly different in appearance from one another, are not markedly similar either. The New Zealand *tarakihi* has three spines attached to the anal fin – a

feature which the photograph in Bagnis et al. (1972) suggests *G. aureolineatus* may share. Rensch (1988:261) points out that in Mangarevan this name is "in a metathesis relationship with *ta'akari*".

#29 PPN \*ta?a 'Holocentrus sp., probably H.spinifer (Forskål), armoured soldier fish' PCP \*ta?a, POC \*taRa?a (Geraghty)

TON ta'a 'H. spinifer', NIU (ika)tā 'Holocentridae, including H. spinifer', TOK, PUK tā 'H. spinifer', NUK, KAP daa 'Holocentrus sp.', TAU, PIL tā 'Adioryx sp.'

### #30 PPN \*malauta?a 'Adioryx sp.'

TON, NTP malauta'a 'Adioryx spinifer', EUV malau ta 'A. spinifer and A. cornutus (Bleeker)', SAM, TOK tāmalau 'Adioryx caudimaculatus (Rüppell), white-tailed squirrelfish', TUV tāmalau 'Adioryx spp.', KAP malau-daa 'red snapper'.

Note that the order of the morphemes is reversed in Samoan, Tokelauan and Tuvaluan.

### #31 PPN \*kuru 'Myripristis sp.'

PCP \*kuru (Geraghty)

NIU  $k\bar{u}$  'a small red fish' (informant), KAP gugu 'fish sp.', HAW  $\bar{u}'\bar{u}$  'Myripristis sp.', TAH ' $\bar{u}'\bar{u}$  'poisson de couleur rouge' (archaic, replaced by i'ihi), RAP  $k\bar{u}$  'Myripristis sp.'

Geraghty's PCP reconstruction, supported by Fijian kuru, Rotuman <sup>9</sup>uru, allows this semantic reconstruction for PPN.

#### **PRIACANTHIDAE**

#32 PPN \*matapula ?'Priacanthus cruentatus, red globe-eye'

TON matapula 'small fish with protruding eyes', NTP malaumatapula (not identified), matapula 'Apogon sp.', EFU matapuni 'nom d'un poisson', EUV matapula 'Pomacentridae sp.', SAM, TOK, PUK matapula 'P.cruentatus'

Compare PPN \*mata 'eye' and \*pula 'shine, glow'. The first Niuatoputapu form given above, as well as the East Uvean word for *Priacanthus* sp., (malau) matamu, reflect the perceptual similarity of *P. cruentatus* and the soldier fishes. *Apogon* species are unrelated to *P. cruentatus*, but do have protruding eyes.

#### **BOTHIDAE**

#33 PPN \*ali 'Bothus spp., flounder'

PCP \*(y)ali 'flatfish' (Geraghty)

TON, NIU, EUV, EFU, SAM, TOK, TUV, PUK ali 'Bothus mancus (Broussonet), lefteye flounder', NUK halihali paa, LUA ali, REN agi, ANU ari, TAU, PIL ali, WFU ari, WUV ali

All glossed 'flounder' or 'Bothus sp.'. This word had been lost in Eastern Polynesian and replaced by a number of different forms.

#### **SPHYRAENIDAE**

#34 PPN \*?ono 'Sphyraena spp., barracuda'

PCP \*?ono, POC \*qono 'barracuda'

TON 'ono, NTP'ono 'wahoo', EUV'ono 'Sphyraenidae sp., largest growth term', TOK, TUV ono, PUK wono, NUK, KAP, TIK, TAU, PIL, WUV ono, HAW, MQS ono 'Acanthocybium solandri, wahoo', TAH, RAP, TUA, CIM, MAO ono 'Sphyraena sp.'

The semantic shift in Niuatoputapu, Hawaiian and Marquesan is well motivated, as the wahoo is a large predatory ocean fish of similar shape and colouring to barracuda. For A. solandri, see #128.

### #35 PPN \*(s,t)apatuu 'Sphyraena spp., barracuda'

TON hapatū 'Sphyraena sp.', NIU utu 'S. forsteri (Cuvier & Valenciennes), sea-pike barracuda', EUV hapatu 'immature 'ono', SAM sapatū, TOK tapatū 'S. forsteri sea-pike barracuda, when young', TUV tapatū 'Ablennes hians, giant needlefish', PUK tātū 'S. forsteri', KAP dabaduu 'fish sp.', LUA kapaku 'striped barracuda', TAU tepatu 'Sphyraenella obtusata, striped sea-pike', WFU tapatu 'barracuda', HAW kākū 'Sphyraena barracuda', MQS tapatu (North), tapatupapa (North and South), RAP taputapu 'Sphyraena sp.'

The distribution of variants is somewhat confusing. One could propose PNP \*tapatuu except for the existence of the Samoan form with initial /s/. In the Hawaiian and Pukapukan reflexes, /p/ has dropped out between identical vowels, leaving a long vowel.

### #36 PPN \*saosao 'Sphyraena spp., barracuda'

PCP \*(s,j)ao(s,j)ao (Geraghty)

NTP hahau 'shark', NIU haohao 'sp. of pipefish', EUV saosao 'espèce de barracuda', SAM saosao 'k.o. fish...predatory and dangerous', TOK haohao 'Sphyraena forsteri, when fully mature', TUV taotao 'S. forsteri and Fistularia petimba', TIK saosao 'S. barracuda', EAS ti'atao 'S. helleri (Jenkins)', MQS kaokao 'S. forsteri', TAH tiatao 'S. forsteri'.

Again, puzzling variation in the initial segment (but see comments in Geraghty (this volume)). The mature *haohao* is called *pānanua* in East Uvean and Tokelauan; cf. Kiribati *baniniua*, 'S. *barracuda*' (Taumaia & Gentle 1983).

#### **MUGILIDAE**

#37 PPN \*kanahe 'Mugil cephalus (Linnaeus), Crenimugil crenilabis (Forskål), and other mullet spp.'

PCP \*kanace (Geraghty), POC \*kananse 'mullet'

TON, NIU, NTP, EUV kanahe, EFU kanae 'Liza macrolepis (Smith)', SAM 'anae, TOK kanae 'M. cephalus', TUV kanase, PUK kanae 'C.crenilabis', NUK, KAP ganae, LUA 'aŋae 'white mullet', REN, TIK, WUV kanae, ANU kanai 'Mugil cephalus', HAW 'anae, MQS (Ua Huka only) kenakenae, TAH 'anae, TUA kanae, CIM kanae, MAO kanae 'M. cephalus'

One of the most widely reflected terms, uniformly glossed as some species of mullet, even in New Zealand Maori. The /s/ in Tuvaluan is an irregularity, as is the final vowel in the Anuta form.

#38 PPN \*?aua 'mullet sp., ?Neomyxus chaptalii (Eydoux & Souleyet), silvery mullet' PCP \*?aua 'juvenile mullet' (Geraghty), PAN \*qawas 'N. chaptalii'

TON 'aua, NTP 'aua, EUV 'aua 'growth term of kanahe', auamui 'Liza sp.', EFU aua 'Mugilidae sp.', SAM aua, TOK aua 'N. chaptalii', PUK aua 'probably M. cephalus', uwoa 'N. chaptalii', KAP huoua 'young mullet', WUV aua 'petit mulet, Mugilidé', HAW uouoa 'N. chaptalii', MQS kaoa (South only) 'mullet sp. including N. chaptalii', TAH auoa, RAP aua(ree) 'M. cephalus when small', TUA uoa, CIM aua (2 inches), uoa (24 inches), MAN auaaua, aua 'growth terms for kanae', MAO aua 'Aldrichetta forsteri, yellow-eye mullet'

This is a disconcerting jumble, but the PAN reconstruction lends support to the reconstruction of PPN \*7aua. We can perhaps guess at PNP \*uoua, since both terms exist in Cook Islands Maori. Possibly the Tahitian and Hawaiian reflexes are a blending of the two forms.

#39 PPN \*fua(fua) 'mullet sp., probably juveniles'

TON fua 'mullet', NIU fuafua 'mullet, juvenile', TOK fuafua(ika) 'mullet, juvenile'

#40 PPN \*kafa 'Mugil vaigiensis (Quoy & Gaimard), diamond-scaled mullet' PCP \*kava 'M. vaigiensis', PEO \*KaRava (Geraghty)

NTP kafakafa, EUV kafakafa, SAM 'afa, TOK kafa, PUK kawa, TAU kaiva, WFU kafa (no identification), MAN, CIM ka'a

Perfect semantic correspondence for this species, and perfect phonetic correspondence except for the Taumako form.

#### **POLYNEMIDAE**

#41 PPN \*kumikumia ?'Polydactylus sexfilis (Cuvier & Valenciennes), P. plebeius (Broussonet), threadfin'

TON kumikumia 'k.o. fish', NTP kumikumia 'P. sexfilis?' (Dye 1983), SAM 'umi'umia 'Polydactylus sp.' (Milner 1966), TOK kumikumia 'fish similar to yellow Moorish Idol (Zanclus cornutus)', TIK kumikumia 'P. sexfilis', ANU kumikumi 'P. plebeius', TAU kumikumia 'P. plebeius', WUV kumikumia 'espèce de barbillon non-id.', MQS kumia 'P. sexfilis'

Compare PPN \*kumikumi 'beard, chin'. The Tokelauan word for P. sexfilis is avaava, also meaning 'beard'.

#### SERRANIDAE

#42 PPN \*faapuku 'Epinephelus sp., possibly E. microdon (Bleeker), marbled sea bass' TON fāpuku 'Epinephelus merra and other small cod', EUV fāpuku 'generic term for Epinephelus sp.', TOK fāpuku 'E. microdon', PUK wāpuku 'Epinephelus sp.', NUK sahudu 'bass sp.', EAS kōpuku 'Serranidae spp.', HAW hapu'u (pu'u) 'E. quernus', MVA hapuku, TAH hapu'u 'E. microdon', RAP apuku 'E. microdon', MAN 'apuku 'large, rare, brown and black mottled', MAO haapuku, whaapuku 'grouper Polyprion oxygenios'

Note the irregular first syllable of the Easter Island reflex. *E. quernus* is the only member of this genus found in Hawaiian waters, according to Jordan and Evermann (1973[1903]:165). The description of MAN 'apuku is consistent with *E. microdon*. The New Zealand Maori species is a member of Percichthyidae, the same suborder as Serranidae, and

has a similar appearance and habitat. Note also MAO matua whaapuku 'scorpion fish, grandfather hapuku'.

#43 PPN \*munua 'large Epinephelus sp.'

PCP \*munua (Geraghty)

TON munua 'k.o. fish, very large', EUV munua 'Variola louti', TOK munua 'large Epinephelus sp.'

**#44 PPN \*tonu** 'Plectropomus leopardus (Lacépède), P. maculatus (Bloch), coral trout' PCP \*donu (Geraghty)

TON tonu 'P. Leopardus and other varieties when large', NTP tonu(mea) 'grouper', EUV tonu 'Plectropomus spp.', EFU tonu 'nom d'un poisson', SAM tonu 'Epinephelus sp., 3 feet long or more' (Milner 1966), TOK, TUV, PUK tonu 'P. leopardus', KAP donu 'seabass sp., TIK, ANU tonu 'P. leopardus', TAU tonu 'Variola louti', WFU tonu 'Plectropomus and Cephalopholis spp.' (Fakamuria n.d.), WUV tonu 'Serranidé', TAH, RAP tonu

*Plectropomus* can reach 3 feet in length and a weight of 30 lbs. Several of the glosses mention the size of *tonu* as compared to other smaller species of Serranid.

#45 PPN \*natala 'Epinephelus and Cephalopolis spp.'

PCP \*gwajala (Geraghty)

TON, NTP ngatala 'Epinephelus and Cephalopolis spp.', NIU ngatala 'Epinephelus, smaller spp.', EUV gatala 'generic term for Epinephelus', SAM gatala 'Epinephelus spp.', TOK gatala 'Epinephelus merra (Bloch), honeycomb sea bass', TUV ngatala 'Epinephelus spp.', NUK, KAP ngadala 'general name for Epinephelus spp.', REN ngataga 'general name for rock cods', TIK ngatara 'E. tauvina', ANU, TAU ŋatara 'Epinephelus spp.', WFU gatara (kosi) 'small brown dotted fish', TAH 'atara 'Epinephelus socialis'

A number of secondary lexemes denoting species are recorded for Niuatoputapu, East Uvean and Kapingamarangi. This word seems to have dropped out of Eastern Polynesian languages except for Tahitian, where it is used for a comparatively uncommon species.

#46 PNP \*faaLoa 'Epinephelus sp., probably Epinephelus tauvina (Forskål), spotted sea bass'

EUV faloa 'Anyperodon leucogrammicus (Valenciennes)', TOK fāloa, PUK wāloa, MQS ha'oa, TAH fāroa, RAP haroa, TUA fārōa, hārōa, CIM (Mangareva) 'aroa

All are glossed E. tauvina, except for East Uvean.

#47 PPN \*loi 'Cephalopolis spp., primarily C. argus (Bloch & Schneider), blue-spotted grouper'

NIU, TOK, PUK, TUV loi 'C. argus', WFU roi (no identification), TAH, RAP, TUA roi 'C. argus', MAN ro'i, CIM (patuki) roi 'C. argus

The glottal stop in the Mangaia reflex is irregular.

#48 PNP \*(w)ewe 'Epinephelus hexagonatus (Bloch & Schneider), orange sea bass' TOK eve, PUK eve, TUA veve 'E. hexagonatus and E. merra'

This is a quite distinctive species because of the hexagonal shape of the spots, and the five dark blotches on the back.

#### KUHLIIDAE

#49 PPN \*safole 'fish sp.', PNP \*safole 'marine Kuhlia spp., flagtail'

TON hofole (no identification), NTP hāfole 'K. mugil', SAM safole 'Kuhlia sp.', TOK hāfole 'K. taeniura (Cuvier), flagtail, and K. marginata (Cuvier), tropical bream', TUV safole 'Kuhlia sp.', PUK ayole 'Kuhlia sp.', NUK sahole 'mountain bass', LUA ahali 'flagtail surgeon fish', TIK safore 'Kuhlia sp.', TAU hole 'Megalops cyprinoides, oxeye herring' (Lincoln n.d.b), EAS māhore 'K. nutabunda (Kendall & Radcliffe)', HAW aholehole 'Kuhlia sp.', MQS hoho'e 'Kuhlia spp.', KAP ahore, TUA ahore 'K. sandwichensis', MAN a'ore

In the absence of a gloss for the Tongan form one cannot make a species identification at PPN level. However, PNP \*safole must certainly have been Kuhlia. Note the irregularity in the Pukapukan, Luangiua and Hawaiian reflexes of \*/f/, and the first syllable of the Easter Island form. East Uvean has a form mafole, glossed 'growth term for Caranx'.

#50 PPN \*seseLe 'juvenile Kuhlia rupestris'

PCP \*sesere (Geraghty)

EUV hehele 'Kuhlia rupestris (Lacépède), a freshwater fish', SAM sesele 'name given to a freshwater fish (Kuhlia sp.) when immature'

#### **CIRRHITIDAE**

#51 PPN \*patuki 'fish sp.', PPN \*'ulutuki 'Cirrhites pinnulatus (Bloch & Schneider), hand-fish'

PNP \*patuki 'Cirrhites and Paracirrhites spp., hand fish'

TON patuki 'fish sp.', 'ulutuki 'C. pinnulatus', NTP 'ulutuki, NIU ulutuki 'C. pinnulatus and P. hemistictus', SAM ulutu'i 'C. pinnulatus', TOK patuki 'C. pinnulatus', patuki laufala 'P. hemistictus', TUV pātuki 'C. pinnulatus and Parachirrhites spp.', PUK pātuki, NUK ulu-dugi, KAP leduge, TIK urutuki, EAS pātuki 'Cirripectes alboapicalis (Ogilby), blenny', HAW paku'iku'i 'Acanthurus achilles, surgeon fish', MQS patuki, TAH patu'i 'C. pinnulatus and P. arcatus', TUA paratuki, CIM patuki(toka), MAO paatutuki 'Parapercis colias, rock cod'

Pending further semantic information on the TON patuki, we cannot assign a species identification to the PPN form. Possibly one word was the generic term, the other a specific. In spite of two irregular vowel correspondences in the Kapingamarangi form, it seems to be related to \*ulutuki. The Easter Island and Hawaiian forms show semantic shift to markedly different species. Randall and Cea Egaña (1984) do not give an Easter Island word for Cirrhites, but the Hawaiian word is po'opa'a or 'o'opu. Note also EUV pataki 'Synodus variegatis, lizardfish (Lacépède)'. The New Zealand Maori form shows a reasonably well-motivated semantic shift: the blue cod has a comparable habitat and somewhat similar length and appearance to C. pinnulatus.

#### CARANGIDAE

#52 PPN \*7ulua 'Caranx sp., probably C. ignobilis (Forskål), big-headed jack' TON 'ulua 'very large Caranx', NIU ulua 'large Caranx, of the four species listed above', EUV 'ulua 'C. ignobilis, big-head jack', EFU ulua 'C. ignobilis', SAM ulua 'Caranx sp.,

three feet long', TOK, TUV, PUK ulua 'C. ignobilis', NUK, KAP ulua 'trevally', REN 'ugua 'general name for trevallies', TIK urūa 'large carangids, of predatory habit', TAU ulua 'Caranx sp. and Gnathonodon speciosus, golden trevally', HAW ulua 'general name for Caranx sp.', MQS u'ua 'C. ignobilis', TAH uruati 'C. ignobilis', RAP urupiti 'C. ignobilis (lit. 'head-two')', TUA urua, CIM urua 'largest growth term for C. sexfasciatus'

See above, for a discussion of this and other names of Caranx spp.

## #53 PPN \*tafa?uli 'Caranx sp., possibly C. lugubris'

TON tafa'uli 'large Caranx of any species', NIU tafauli 'a fish', EUV tafa'uli 'C. melampygus', TOK tafauli 'C. lugubris', TUV tafauli 'C. lugubris, PUK (lui) tawauli 'C. lugubris, large', LUA kahauli 'trevally sp.', REN taha'ugi 'k.o. large fish', TIK tafauri 'C. melampygus', HAW kaha'uli 'refers to some kinds of ulua and some small tuna'

Compare PPN \*'uli 'black'. In Eastern Polynesian languages other than Hawaiian, this term has been replaced by reflexes of PCE \*ruhi (see below), everywhere glossed C. lugubris. Note that Pukapukan contains both terms, lui possibly as a result of contact with Cook Islands Maori. It is applied to the juveniles of this species.

### #54 PEP \*luhi 'C. lugubris'

PUK lui, EAS ruhi, MQS'uhi, TAH, RAP, TUA ruhi, MAN, CIM ru'i

### #55 PPN \*lupo(lupo) 'Caranx spp.'

TON lupo 'mature Caranx', lupolupo 'juvenile Caranx', NTP lupo 'C. ignobilis', lupolupo (no semantic information), NIU lupolupo 'juvenile Caranx spp.', EUV lupolupo 'juvenile of 'ulua', lupo 'second growth stage of 'ulua'', SAM lupo 'juvenile Caranx spp. 2-3 inches', lupo(tā) 'Caranx spp. 6 inches', TOK lupolupo 'juveniles of all Caranx spp.', TUV lupo, lupolupo 'Gnathodon speciosus (Forskål), golden jack' (Zann 1980), lupo(laga) 'juvenile Caranx', lupo(sama) 'Caranx sp.' (Besnier 1981), PUK lupolupo 'juvenile Caranx', lupo 'juvenile of C. melampygus and C. ignobilis', LUA lupu 'great trevally', REN gupo 'juvenile Caranx', WUV lupo 'poisson gros et large', HAW ulupō 'juvenile of ulua', MQS 'upo'upo 'Carangoides gilberti striped jack', TAH rupo 'name of a little fish' (Davies 1851 only), TUA rupo 'C. melampygus', MAN riporipo 'juvenile Caranx spp.'

The use of the reduplicated form for juveniles can probably be assumed for PPN. Note irregularity of the final vowel in the Luangiua and Hawaiian forms, and first vowel of the Mangaia form, and excrescent initial vowel in Hawaiian.

### #56 PNP \*komuli 'C. sexfasciatus (Quoy & Gaimard), horse-eye jack'

TOK komulo, PUK kōmuli, HAW omilu 'C. melampygus', TAH 'omuri, RAP omuri 'Carangoides ferdau (Forskål)', TUA komuri, CIM komuri, 'C. lugubris' (Bacquie 1977)

Unless noted otherwise, all reflexes denote *C. sexfasciatus*. Note the irregularity in the final vowel of the Tokelauan form. The Hawaiian form shows metathesis of the second and third vowels as well as semantic shift to a similar species.

## #57 PPN \*aseu 'Caranx sp.'

NIU aheu 'seasonal fish which pursues kaloama and atule' (McEwen 1970), 'Jack or trevally between 12 and 20 inches in length' (informant), TOK aheu 'C. melampygus', TUV asseu (Besnier 1981), aseu (Zann 1980) 'Caranx spp.', PUK āyeu 'C. melampygus', LUA ausihu 'golden trevally'

The description in McEwen's (1970) dictionary is consistent with the habits of C. melampygus.

#58 PPN \*teu 'Caranx sp.'

PCP \*jeu 'Caranx sp.' (Geraghty)

TUV, TIK teu 'Caranx spp.', ANU teteu 'Caranx sansun (Forskål), Papuan trevally'

#59 PPN \*kata 'Caranx spp., or growth term for Caranx'

PCP \*i-kata (Geraghty)

NIU (ulua)kata 'large Caranx', EUV katakata 'unidentified Scombridae', SAM 'ata 'large predatory fish which chase atule' (Milner 1966), TOK kata 'large sized C. melampygus and C. sexfasciatus', PUK kata 'Epinephelus spp.', NUK gada 'Caranx spp.', KAP gada 'Caranx spp.'

Of interest also are EUV kāta 'archaic, troupe de poissons' (Rensch 1983), EFU kata 'troupe de poissons', TIK kata 'large', and two other Tokelauan meanings of kata: 'school of black jacks or school of sharks' and 'a skip jack which seeks refuge or protection by the side of a fishing canoe when it is being pursued by a larger fish'.

#60 PPN \*filu 'Carangidae sp.'

PCP \*vilu (Geraghty)

TON, NTP filu 'Caranx sp.', EUV filu 'Carangidae spp.'

Like \*teu, this term is of very limited distribution in Polynesia, but the reconstruction is supported by cognates in Fijian and Gitua.

#61 PNP \*alaala(futu) 'Carangidae spp.'

EUV alaala 'C. fulvoguttatus (Forskål)', EFU alaala(muli) 'nom d'un poisson', SAM alaalafutu, lalafutu 'Caranx sp.', TOK alaala 'Carangoides gilberti, striped jack', alaalafutu 'Gnathanodon speciosus, golden jack', PUK lālāwutu 'Gnathanodon speciosus and possibly C. gilberti', NUK alaala 'two species of jack', KAP alaala 'C. melampygus', TIK arārafutu 'sea fish of snapper type', TAU te alala 'Scomberoides lysan, Trachinotus bailloni', MEF raara 'Caranx sp., smallest stage', MAN, CIM (titi)ara 'Caranx spp.', MAO araara 'Caranx georgianus and other Carangidae spp.'

The loss of initial /a/ in Mele Fila is regular. The species identifications given by Lincoln (n.d.b) for the Taumako form are both Carangidae and both silver with black dots, but otherwise there is little resemblance between them.

#62 PPN \*soke(lau) 'Caranx sp.', PNP \*soke 'Trachinotus bailloni, pompano or swallow-tail jack'

TON hokelau 'black pomfret', EUV hokelau 'Carangoides gilberti', TOK hoke, PUK yoke, MOS hoke, TUA hoke 'Trachinotus bailloni', MAO hoki 'Macruronus novaezelandiae (Merlucciidae)'

A sound species-level identification for PNP. The reflexes show perfect phonetic and semantic correspondence except for the New Zealand Maori word, which refers to a quite dissimilar fish, related to the hake, and should perhaps not be included here, given the discrepancy in the final vowel.

#63 PNP \*pakewa 'Carangoides ferdau jordan, black-spot jack'

TOK pakeva, PUK pakeva, TUA pakeva

As with the previous set, there are not many reflexes but they are widely distributed geographically. See also Clerk (1981:177).

### #64 PPN \*?atu?alo 'Megalaspis cordyla'

TON 'atu'alo, EUV 'atu'alo 'Euthynnus sp. (Scombridae)', SAM atualo, TOK atualo

Another very small set. It is possible that the East Uvean word may refer to more than one variety of fish.

#65 PPN \*lai 'Chorinemus tol (Cuvier & Valenciennes), slender leather-skin' PCP \*laci (Geraghty)

TON lai 'fish sp.'; NTP lai 'leatherback', NIU lai 'fish sp.', EUV lai 'Euthynnus affinis (Cantor)', SAM, TOK, PUK, LUA lai, REN gai 'Chanos chanos', TIK rai, HAW lai, MQS 'ai'ai, TAH, TUA rai, MAN rai 'Trachinotus bailloni', 'C. ferdau', CIM rai.

Reliable glosses have not been obtained for Tongan and Niuatoputapu. The Rennellese form represents a marked semantic shift. Otherwise most glosses point to *Chorinemus tol*, so that we can certainly make this identification at PNP level, possibly at PPN.

#66 PPN \*?atule 'Selar crumenopthalmus (Bloch), silver scad' PAN \*qatulay 'Trachurops sp.'

TON 'otule, NIU atule, EUV 'atule, SAM, TOK atule, TUV atule 'Decapterus pinnulatus', PUK atule, KAP adule, TIK ature, WFU eture 'scad or mackerel', EAS ature, HAW akule, MQS etu'e, TAH ature, CIM atur, MAO haature, hauture 'Trachurus novaezelandiae, jack or horse mackerel'

One of the more important food fish and one of the most widely distributed fish names. The New Zealand Maori form shows phonological changes in the first syllable but the species are closely related.

#67 PPN \*huli, PNP \*ulisena ?'fusilier sp. or mackerel sp.'

TON huli 'k.o. fish' (Churchward 1959), NIU ulihenga 'a fish, herring' (McEwen 1970), 'mackerel' (T.Ryan, pers.comm.), TOK uli 'Decapterus pinnulatus (Eydoux & Souleyet), mackerel scad', ulihenga 'Pterocaesio tile (Cuvier & Valenciennes), tricoloured fusilier', PUK uli 'P. tile, adult' (K. Salisbury, pers.comm.), TAU uliuli 'Aprion sp., rosy Job fish' (Lincoln n.d.b), (TAH uri 'Naucrates ductor, pilot fish')

Not much to go on here, just a puzzling network of tenuous semantic connections. Clerk (1981:143) comments on the resemblance between P.tile (a Lutjanid) and the scads; Mangaians perceive them as similar in both appearance and behaviour. Geraghty (this volume) reconstructs PPN \*suli [sic] and PCP \*(c,s)uli 'Caesio sp.', on the basis of TON huli, SAM ulisega, and FIJ (c,s)uli(c,s)uli. The Tongan and Samoan reflexes would support a PPN reconstruction of \*huli, since for PPN \*s one would expect Samoan /s/, but I have been unable to obtain semantic information on the Tongan form which would help in establishing a reliable species identification for PPN. As Geraghty points out, if the two forms are cognate, NIU ulihega is probably a borrowing from a Nuclear Polynesian language. Decapterus is an important food fish in Eastern Polynesia (see below, \*kopelu); in Tokelauan it is valued most as a bait for tuna fishing. Unfortunately I have not been able to find words for this species in any other Western Polynesian language except Tuvaluan, where it is called atule, elsewhere the name for Selar crumenophthalmus.

The TAH uri, 'N. ductor', belongs to the same family as Decapterus (see Tokelauan reflex) but bears little resemblance to it, and a more likely source for the name can be found in the set \*talitali?uli(see #100).

Note in addition to the above, MQS (Ua Huka) ku'io 'Pterocaesio sp.' and TAH 'urio 'P. tile'.

#68 PEP \*kopelu 'Decapterus spp.'

PUK kōpelu, HAW 'opelu, MQS kope'u 'sorte de poisson' (Dordillon 1931), 'operu 'Decapterus sp.' (Lavondès 1977), TAH 'operu, TUA koperu, MAN, CIM koperu, MAO kōheru 'Decapterus koheru'

Found in Eastern Polynesian languages and in Pukapukan. The New Zealand Maori term has an irregular correspondence in the second consonant, but the species very closely resembles D. pinnulatus. Pukapukan, Cook Islands Maori and New Zealand Maori have a long  $\bar{o}$  in the first syllable.

#69 ?PNP \*kamai 'Elagatis bipinnulatus, rainbow runner'

TOK, TUV, PUK kamai; note also KIR kamaa (Taumaia & Gentle 1983).

A fish name which I have found only in these four languages, but with perfect semantic correspondence. Given the possibilities of diffusion, I am only tentatively suggesting a reconstruction.

#### **CORYPHAENIDAE**

#70 PPN \*masimasi 'Coryphaena hippurus, dolphin fish'

TON NTP mahimahi, EFU masimasi 'nom d'un poisson', SAM masimasi, TOK mahimahi, TUV masimasi, KAP mahimahi, TIK masimasi, HAW, MQS mahimahi, CIM ma'ima'i

Widely distributed term for this notable fish. The Pukapukan innovation is fittingly distinctive: kanakanālangi.

#### **CAESIONIDAE**

#71 PPN \*tikawa 'fish sp.'

PCP \*tikawa 'Caesio sp.' (Geraghty)

SAM ti'ava, TOK tikava 'tuna baitfish, Mulloidichthys sp.' (Gillett 1985), TIK tikava 'small marine fish (perhaps Amentum sp.)' (Firth 1985).

The PPN form is reconstructed on the basis of Geraghty's data. As the Tokelauan reflex is the only one for which I have reliable semantic information, it is impossible to suggest a species identification for PPN. For Caesionidae, see also the discussion under #67, \*huli and \*uliseŋa.

#### LUTJANIDAE

#72 PPN \*tana?u 'Lutjanus spp., red or yellow in colour'

TON, NTP tanga'u 'L. fulvus and other snapper spp.', EUV taga'u 'L. fulvus (Schneider), L. rufolimentus (Valenciennes)', SAM tagau 'L. marginatus', TOK tagau 'L. vaigiensis, yellow margined sea perch', PUK tangau 'a red snapper', ngatau 'L. vaigiensis', NUK, KAP dangau 'general name for snappers', TAH to'au 'L. vaigiensis', TUA tagau 'L. bohar', MAN tangao 'L. monostignus and other yellowish Lutjanus spp.', CIM tangau 'L. bohar, L. gibbus, L. rivulatus

See section 4 for a discussion of this and the following four cognate sets. The metathesised Pukapukan form was supplied by K. Salisbury (pers. comm.).

### #73 PPN \*sa(a)putu 'Lutjanus sp.'

PCP \*(c,s)abutu 'Lutjanus or Lethrinus sp.' (Geraghty)

TON hoputu 'Lethrinus miniatus, possibly also Lutjanus gibbus', EUV hoputu tokelau 'Lethrinus chrysostomus (Richardson)', TOK hāputu 'Lutjanus rivulatus, Maori snapper', NUK saabudu 'fish sp.', TIK saputu 'Lethrinus kalopterus', TAH haputu 'L. rivulatus', TUA haputu 'Cephalopolis argus, blue spotted cod', CIM 'aputu 'Kuhlia sp.'

The Tahitian word is given in Bagnis et al. (1972) but does not appear in any of the dictionaries. The Cook Islands Maori form is included on the basis of identifications from Mangaia (Bacquie 1977) and Aitutaki (K. Salisbury, pers.comm.), and manifests a marked semantic shift, as does the Tuamotuan reflex.

#74 PPN \*fanamea 'red Lutjanus spp., especially L. bohar red snapper'

TON, NIU fangamea 'L. bohar', EUV fagamea 'growth term of L. bohar', EFU fagamea 'poisson vénimeux', TOK fagamea 'L. bohar', PUK wanga(tua) 'L. bohar', (malau) wangamea 'largest size of malau', NUK angamea 'large dada' (i.e. a snapper sp.), REN hangamea 'L. coatesii', TIK fangamea 'L. bohar', MQS haka (North), fana 'L. bohar' (South), TAH ha'amea 'L. bohar', TUA fangamea 'L. bohar', MAN 'angamea

Very good semantic and phonetic correspondence across a wide area. The -mea is dropped in Pukapukan and Marquesan; cf. PPN \*mea 'red'.

### #75 PPN \*ta?iwa 'Lutjanus monostignus, black spot snapper'

PCP \*taciwa 'Lutjanus sp.' (Geraghty)

NTP ta'iva? 'snapper', SAM taiva 'Lutjanus sp.', taiva uliuli 'L. monostignus', TOK tāiva, TUV taiva, PUK tāiva, MQS, TAH tāivaiva, all glossed 'L. monostignus'

Very consistent glosses, and the glottal stop in the Niuatoputapu reflex suggests a Tongan origin, but pending more detailed semantic information from Niuatoputapu, the PPN identification must remain tentative.

## #76 PPN \*taae?a 'Lutjanus sp., probably L. gibbus'

PCP \*taae?a 'L. gibbus' (Geraghty)

EUV tāe'a 'L. fulviflamma Forskål', TOK tāea 'L. gibbus, paddle-tail snapper', TUV taea 'L. fulvus (Zann 1980), L. gibbus (Zann 1980; Taumaia & Gentle 1982)', PUK tāea 'L. gibbus', NUK, KAP daaea 'snapper sp.', MVA, TAH (ISLV), TUA tāea 'L. gibbus', CIM taea 'L. monostignus'

As with the previous set, the glottal stop in the East Uvean word suggests a Tongan origin, thereby raising the possibility of a PPN reconstruction.

# #77 PPN \*t(a,o)kape 'Lutjanus kasmira, blue-lined sea perch'

PCP \*takabe 'L. kasmira' (Geraghty)

KAP dagabe 'fish sp.', TIK, ANU tokape 'L. carponotatus', TAU takape 'L. kasmira', HAW ka'ape'ape(hā) 'deep sea fish said to resemble the moano', MQS kokape, tekape, (North), te'ape (South), TAH ta'ape 'L. kasmira', RAP takape 'L. kasmira'

On the basis of the Fijian reflex cited by Geraghty, we can take this to be the earliest PPN specific term and #78 an innovation, either a variant in PPN or arising later and spread by borrowing.

#78 PPN \*sawane 'Lutjanus kasmira, blue-lined sea perch'

TON, NTP havane, EUV havane 'Lutjanus spp.', SAM savane, TOK havane

Limited distribution, but perfect semantic correspondence; a fish of very distinctive appearance.

#79 PPN \*muu 'Monotaxis grandoculis (Forskål), tropical porgy'

PCP \*muu (Geraghty)

TON, NTP, EUV, SAM, TOK, TUV, PUK, NUK, KAP, REN, TIK, HAW, MQS, TAH, TUA, MAN mū 'Monotaxis grandoculis', MAO muu, synonym of mohi 'a sea fish'

No doubt at all about this one. The solitary nonconformist is Niuatoputapu, where the term for this species is *hikuila*. In Nukuoro, and possibly elsewhere, the name *muu* is used for a number of snapper varieties in addition to *M. grandoculis* (Carroll & Soulik 1973).

#80 PPN \*?utu 'Aprion virescens (Valenciennes), grey jobfish'

PCP \*?uto (Geraghty)

TON 'utu, NIU utu 'Sphyraena forsteri, barracuda', EUV 'utu, TOK, TUV utu, PUK palu wutu, NUK, KAP udu, REN utu, HAW uku, MQS, TAH utu

All reflexes except the Niuean refer to A. virescens. For the Pukapukan form, cf. PPN \*palu (below), and see also Hooper (1991).

#81 PPN \*palu 'Aphareus furcatus, small-toothed jobfish', 'Etelis carbunculus, squirrel fish snapper', 'Pristipomoides argyrogrammicus, big-eyed snapper' and 'Tropidinius zonatus, flower snapper'

Reflexes are recorded from the following languages: TON, NIU, EUV, EFU, NTP, SAM, TOK, TUV, PUK, NUK, KAP, TIK, ANU, MQS, TAH, TUA, RAP, CIM. The names of these fish species are usually binomial terms, of which a reflex of \*palu is the head (e.g. NIU palu heahea, TOK palu hega, PUK palu yengayenga 'flower snapper'). See Hooper (1991) for a detailed account of the distribution of these terms and the fishing methods associated with this group of deepwater fish species, and see also section 4.

#### **LETHRINIDAE**

#82 PNP \*fiLoa 'Lethrinus sp.'

TON filu 'Carangidae spp.', SAM filoa ava 'Lethrinus miniatus (Schneider), long-nosed emperor', TOK, TUV filoa 'L. miniatus', PUK yīloa 'L. miniatus', NUK hiloa 'fish sp.', KAP hiiloo 'fish sp.', TIK firoa 'Lethrinus sp.', TAU hiloa 'Lethrinella variegata' (Lincoln n.d.b), WFU firoa muru (Capell 1984), CIM 'iroa 'L. miniatus

The Tongan form may or may not be cognate. The Cook Islands Maori reflex allows us to make a PNP reconstruction. Elsewhere in Eastern Polynesia the name of this fish seems to be a local innovation.

#83 PPN \*nutula 'Lethrinus sp.'

PCP \*gu(j,t)ula 'Lethrinus sp.' (Geraghty)

TON ngotula 'k.o. fish', TOK gutula 'L. miniatus, juveniles', TUV gutula 'L. variegatus' (Zann 1980), NUK ngudula 'snapper sp.', PIL nutula 'Lethrinella miniata' (Lincoln n.d.b), WUV ngutula 'poisson au bec rouge et ressemblant au bec de cane'

The PCP reconstruction allows us to make a PPN identification (cf. gutu 'mouth', possibly a reference to the head shape of L. miniatus). However this shape is not so pronounced in the case of L. variegatus.

#84 PPN \*kulapo 'fish sp.'

PAN \*kurapu(q), POC \*kurap(o,u) 'fish sp.' (Blust 1972a), PCP \*kulabo 'Lethrinidae sp.' (Geraghty)

TON kulapō 'k.o. fish' (Churchward 1959), TON, NTP kulapo 'fish sp.' (Dye 1983), EUV kulapo 'Lethrinus nematacanthus (Bleeker)', SAM ulapo 'lighter coloured species of genus Scarus (parrot-fishes) when about 6 inches long' (Milner 1966), 'ulapo 'full-grown parrot fish' (Goo & Banner), TOK kulapo 'Scarus harid (Forskål), juvenile'

A very puzzling set, with marked semantic change in the Samoan and Tokelauan reflexes. Milner gives the Samoan form without an initial glottal stop, but the near identity of the Samoan and Tokelauan glosses suggests that the correct form is 'ulapo, as in Goo and Banner (1963) (though with a different gloss!). I have been unable to establish a reliable identification for the Tongan form, although one source (Pond n.d.) gives "?Carodon Schlegeli" (cf. #110).

### #85 PEP \*ta(a)mule 'Lethrinus sp.'

PUK tāmule 'Lethrinus mahsena, Tuamotu emperor', MQS tamue 'poisson' (Dordillon 1931), TUA, RAP, CIM tamure 'Lethrinus spp.', MAO taamure 'Chrysophrys auratus, snapper'.

One of several names which Pukapukan shares with Eastern Polynesian languages. The semantic shift in New Zealand Maori is a well-motivated one; *Lethrinus* spp. are not caught in New Zealand waters, but *C. auratus* has a similar habitat and characteristics.

### #86 PPN \*manaa 'fish sp.'

TON 'Lethrinus variegatus, variegated emperor'

Note: this fish name is widely reflected in Eastern Polynesia, with the referent *Promethichthys prometheus*, snake mackerel (see #127). In habitat and appearance the two species differ markedly, and the evidence does not allow us to make a more precise semantic reconstruction at PPN level.

#### **PEMPHERIDAE**

#87 PNP \*manifi 'fish sp.'

PSO \*manifi 'Pempheris oualensis, sweeper'

NTP mānifi, mānifi matapula 'fish sp.', WFU manifi 'fish sp.', SAM, TOK manifi 'P. oualensis', PUK pāniwi 'P. oualensis', TIK manifi 'P. oualensis'

In the absence of precise identifications for the Niuatoputapu terms, we can only reconstruct this meaning for PSO. As this is a fish of distinctive appearance it is rather surprising that its name is in many languages a local innovation.

#### **GERRIDAE**

#88 PPN \*matu 'Gerres spp., mojarras'

PCP matu (Geraghty)

TON matu 'k.o. fish: like a silver bream. When full-grown it is called matulā' (Churchward 1959), NTP, EUV, SAM, TOK matu 'Gerres sp.', KAP madu 'fish sp.: mojarra', WUV matu 'Gerres sp.'

#### **MULLIDAE**

#89 PPN \*wete 'Mulloidichthys, goatfish sp.'

POC \*wete (Walter 1989), PCP \*tewe (Geraghty, based on KIR tewe)

TON, SAM, TOK, TUV vete, PUK vete(tea), NUK, KAP wede, REN bete, TIK vete, HAW weke, MQS, TAH, MAN, CIM vete

All reflexes are glossed 'goatfish' or 'Mulloidichthys sp.', frequently M. samoensis.

### #90 PPN \*hafulu 'goatfish, most likely Parupeneus and Upeneus spp.'

NIU hafulu 'general term for full-sized goatfish' (informants), SAM afulu 'small memea' i.e. goatfish (Milner 1966), afolu 'M. samoensis' (Jordan & Seale 1906), TOK, TUV afulu 'Parupeneus spp.', PUK kawulu 'Parupeneus spp.', NUK ahulu 'goatfish sp.', REN 'ahugu 'a small fish said to resemble ga'ea (parrotfish)', TIK afuru 'goatfish', EAS hahuu 'Pseudupeneus orientalis (Fowler)' (Randall & Cea Egaña 1984), HAW 'ahuluhulu 'juvenile of Upeneus porphyreus', TAH ahuru 'goatfish spp.'; MAN ka'uru 'red and purplish Mullidae spp.', CIM ka'uru'uru 'Parupeneus sp.', MAO āhuruhuru 'Upeneichthys lineatus, red mullet', āhuru 'Auchenoceros punctatus'

The last named species is a small cod, pink in colour and with barbels under the chin, but otherwise not resembling goatfish. This widely disseminated form exhibits a number of phonetic irregularities: change in the initial vowel in Luangiua, and in the second vowel in one of the Samoan reflexes; epenthetic initial /k/ in Pukapukan, Mangaia and Cook Islands Maori, and initial glottal stop in Rennellese and Hawaiian; cf. PPN \*fulu 'hair'.

### #91 PPN \*malili 'goatfish sp.'

TON malili 'red mullet', TOK mālili 'Mulloidichithys vanicolensis, non-spotted goatfish', TUV mailili 'Upeneus vittatus', NUK, KAP malili 'goatfish sp.', TIK mālili

### #92 PPN \*memea 'goatfish sp.'

TON mēmea 'a reef fish', NTP memea 'Parupeneus sp.', NIU memea 'reddish goatfish, 6-7 inches long', EUV memea 'Mulloides flavolineatus (Lacépède)', SAM memea 'goatfish sp.', TOK, PUK memea 'Mulloidichthys auriflamma, gold-lined goatfish'

If the East Uvean and Tokelauan glosses are scientific synonyms, as seems likely, a tentative reconstruction confined to this species would be in order.

### #93 PPN \*kaloama 'goatfish'

TON kaloama 'young vete (Mulloidichthys)', NTP kaloama 'Mulloides flavolineatus (Lacépède)', NIU kaloama 'goatfish, small, yellowish' (informant), EUV kaloama 'M. flavolineatus', SAM 'aloama 'k.o. fish', TUV kalo 'Mulloidichthys auriflamma' (Zann 1980; 'synonym of above), PUK kalōma 'yellow mullet' (Beaglehole & Beaglehole 1938), KAP gala 'goat fish sp.', MQS ka'oa 'Upeneus vittatus' (North), 'Mulloidichthys sp. (South), MAN koama, koama vete 'M. samoensis, M. vanicolensis', CIM koama 'young vete, 6 inches' (Eacquie 1977), MAO koroama, koroamo 'a small fish'

#### #94 PPN \*matu<sup>?</sup>ulau

PCP \*matuxurau 'Parupeneus sp.' (Geraghty)

NTP matu'ulau 'goatfish', EUV (moaga) matu'ulau 'Parupeneus spp.', SAM matūlau 'Pseudupeneus sp.', KAP madu-ai-lau 'goatfish sp.', TIK motūrau 'small goatfish', MQS matu'au 'Parupeneus spp.'

On the assumption that the Niuatoputapu and East Uvean forms are of Tongan origin, as indicated by the glottal stop found only in these two languages, I am reconstructing /I/ as the final consonant (cf. Geraghty's \* $matu^{2}u(r,l)au$ ).

### #95 PNP \*moaga 'Parupeneus spp.'

EUV moaga 'Parupeneus sp.', SAM moaga, moana 'Parupeneus sp.', TOK moaga 'Parupeneus spp.', PUK moanga 'small goatfish of all varieties' (tentative), KAP moanga 'goatfish', TIK moanga 'goatfish', HAW moana 'Parupeneus sp.', MQS moana 'Parupeneus sp.' (South), TUA moaga 'Parupeneus sp.'

Note the irregular final vowel in the Hawaiian reflex.

#### **KYPHOSIDAE**

#96 PPN \*(na)nue 'Kyphosidae, rudderfishes'

PCP \*renua 'Kyphosus' (Geraghty)

TON, NIU nue, SAM, TOK, TUV, PUK, TIK nanue, EAS nānue, HAW nanue, MQS nenue, TAH, MAN nanue, MAO nanua 'Cheilodactylus spectabilis morwong, red moki'

A very widely distributed fish name. All glosses except New Zealand Maori refer to *Kyphosus* spp. Bagnis et al. (1972) identify TAH *nanue* as *K. cinerascens*. See Randall and Cea Egaña (1984) for a list of binomials applied to varieties of *K. bigibbus* (Lacépède) in Easter Island. The New Zealand Maori form has an irregular correspondance in the final vowel and the species have little in common.

#### CHAETODONTIDAE and ZANCLIDAE

#97 PPN \*tifitifi 'butterfly fish'

PRO \*tipitipi (Walter 1989), PCP \*tivitivi (Geraghty)

TON sifisifi, NIU tifitifi 'Chaetodon spp.', SAM, TOK, TUV tifitifi 'general name for Chaetodontidae', PUK tiwitiwi, NUK, KAP dihidihi, TIK tifitifi 'angelfish', WFU shihshifi 'angelfish and butterfly fish', shihshifi kaiao 'Zanclus sp.' (kaiao 'plume') (Fakamuria n.d.), EAS tipitipi'uri 'Chaetodon litus (Randall & Caldwell)', tipitipi hoe 'Forcipiger flavissimus (Jordan & McGregor)', HAW kihikihi 'Zanclus canescens, Chaetodon sp. and Zebrasoma veliferum', MQS patihi 'butterfly fish', MAN, CIM ti'iti'i 'butterfly fish'

Note also HAW ulua kihikihi 'Alectis ciliaris', a striking lozenge-shaped Carangid with long trailing streamers like those of Z. canescens, and TUV tetaetifi otua 'Chelmon sp., beaked butterfly fish'.

#98 PSO \*laulaufau 'Zanclus canescens, Moorish idol, Chaetodon spp.'

SAM laulaufau 'Heniochus sp. (Chaetodontidae)', TOK laulaufau 'Zanclus canescens', TUV laulaufau 'Chaetodon auriga and Platax sp., batfish' (Zann 1980), PUK lūlūau 'Z. canescens', REN gaugauhau 'general name for butterfly fish when dominantly striped' (Elbert 1975), TIK rauraufau

#### **POMACENTRIDAE**

#99 PPN \*mutu(mutu) 'fish spp., probably Pomacentridae'

PCP \*mu(t,d)u 'Abudefduf' (Geraghty)

TON mutumutu 'k.o. fish', NTP mutu 'Abudefduf septemfasciatus', NIU mutumutu 'small grey fish with dark vertical bands and a yellowish patch on back', EUV mutumutu 'Abudefduf sordidus (Forskål), sergeant major', SAM, TOK mutu 'Abudefduf spp.', TUV mutumutu 'Pomacentridae', TIK, ANU mutu 'general term for Pomacentridae', WFU mutu 'toadfish' (Fakamuria n.d.)

A variety of secondary lexemes are recorded for Tokelauan, including mutufatu, mututea and mutulei, referring to dark, light, and small species respectively. In Eastern Polynesian languages, mutu has been replaced by a variety of other terms. Note however MAO mutumutu 'a fish, prized for its delicacy'. The toadfish (West Futunan) bears no resemblance to Pomacentridae.

#### **ECHENEIDAE**

#100 PPN \*talitali?uli 'Echeneis sp., remora, and Naucrates ductor, pilot fish' TON teliteli'uli 'pilot fish' (Churchward 1959), NTP teliteli'uli 'remora', NIU tolitoliuli 'Echeneis sp.', EUV talitali'uli 'Echeneis and Remora spp.', SAM talitaliuli 'pilot-fish (Leptecheneis sp.) [sic.]' (Milner 1966), TOK talitaliuli 'fish parasites which include the pilot fish (N. ductor), cleaner-fish or paradise fish (Labroides dimidiatus) and the teletelevakaniu or suckerfish (Ecneneis naucrates)', PUK talitaliuli 'Echeneis sp.', KAP danedaneauli 'E. naucrates', LUA kauliuli 'slender sucking fish', TIK taritariuru 'suckerfish', WUV taliuliuli 'poisson: suçon', EAS (māngo) taritari 'Naucrates ductor', MQS (Nuku Hiva) tataiu'i 'E. naucrates and Remora remora', TAH tiatiauri 'E. naucrates', TUA kakariuri 'E. naucrates', MAN taritari

Common glosses of 'support' or 'wait upon' for reflexes of PPN \*talitali relate well to the habits of pilot fishes and remoras, both of which are closely associated with sharks. Milner's gloss for the Samoan name exemplifies the confusion between these two unrelated species which obtains at the level of vernacular naming in both European and Polynesian cultures. The 'pilot fish' is Naucrates ductor, a Caranx, whereas the name Leptecheneis is an obsolete scientific synonym of Echeneis. Christian Clerk (1981) gives the etymology 'carried about' for MAN taritari. This casts some light on the Tahitian form, since tiatia also means 'to carry or convey' (Davies 1851). PPN \*?uli 'to steer' seems an obvious source for the final morpheme rather than \*?uli 'black', since E. naucrates is a greenish-grey and N. ductor is bluish, green and silver. Note the irregular correspondence /k/ for /t/ in Tuamotuan, and in West Uvean the reduplication of the second morpheme rather than the first.

The Tokelauan specific teletelevakaniu is not so far as I know attested elsewhere.

#### LABRIDAE and SCARIDAE

These are considered together, since some cognate sets contain glosses referring to both families. Many of the names for parrotfishes and wrasses appear to be local innovations.

### #101 PPN \*sunale 'wrasse sp.'

TON, NTP hungale 'Halichoeres centriquadrus' (syn. of Hemitautoga centriquadrus (Lacépède)), SAM sugale 'name give to wrasse spp.' (Milner 1966), TOK hugale 'Thalassoma hardwickii, six-barred wrasse', hugale paea 'H. centriquadrus'

Very limited distribution. Note also SAM *fuga*, 'general name given to fishes of genus *Scarus* when about 1 ft. long' (Milner 1966).

### #102 PNP \*pap(o,u) 'Cheilinus sp.'

TOK papo 'Cheilinus fasciatus (Bloch), Maori wrasse', TUV papo 'Epibulis insidiator (Pallas), Ch. trilobatus (Lacépède)', PUK papo (adult), papopapo (juvenile) 'Ch. fasciatus, NUK babu honga akau, LUA papu 'Maori wrasse', REN papu 'several kinds of dark brown wrasse fish', TAH papae mara 'Ch. fasciatus and trilobatus'

### #103 PNP \*maLa(tea) 'Cheilinus undulatus (Riippell), Napoleon fish'

TON mala 'a large Serranid fish, like tonu', NTP mala (no semantic information), TOK, TUV, PUK malatea 'Ch. undulatus', TAH mara 'Ch. undulatus', RAP maratea 'Bodianus perditio (Quoy & Gaimard)' (Randall & Sinoto 1978), TUA, CIM maratea 'Ch. undulatus', MAO maratea 'Chironemus spectabilis, kelpfish'

The Rapa word refers to a wrasse, but the New Zealand Maori one to a fish with no resemblance to this family. In Pukapukan the juvenile of this species is called *lalawi* (see below).

### #104 PPN \*m(a,o)lali 'wrasse sp.'

PCP \*m(a,e)rari (Geraghty)

TOK molali 'Ch. trilobatus, trilobed Maori wrasse', PUK malali 'Anampses godeffroyi' (Beaglehole & Beaglehole 1938), LUA maalali 'rainbow fish' (?Halichoeres sp., rainbow wrasse), EAS mārari (male), mōri (female) 'Anampses caeruleopunctatus (Rüppell)', mārari 'Novaculichthys taeniourus (Lacépède) and Coris angulata (Lacépède), wrasse spp.'

Inexplicably, Randall and Cea Egaña (1984:13) do not include the two last identifications in their list of Rapanui fish names, but in the discussion at the end of the article.

Geraghty (this volume) reconstructs PCP \*m(a,e)rari on the basis of Rotuman marari and Proto Micronesian \*merari.

## #105 PPN \*nutuloa?'Epibulis insidiator (Pallas), or other long-nosed wrasse sp.'

TON ngutuloloa 'k.o. fish', SAM gutu ume, TOK gutuloa 'E. insidiator', KAP ngutu looloo 'fish sp.', TAH (papae)'uturoa 'E. insidiator'

One of the few descriptive names with a fairly widespread distribution.

## #106 PPN \*taŋafa 'Cheilinus sp.'

PCP \*taŋava 'Cheilinus undulatus' (Geraghty)

TON tangafa 'k.o. fish', SAM tagafa 'Cheilinus sp.' TUV tangafu 'C.undulatus', TIK tangafa 'sea fish...apparently a wrasse' (Firth 1985)

### #107 PPN \*?ufu 'wrasse or parrot fish'

TON 'ufu 'Anampses sp.', NTP 'ufu 'Cheilinus trilobatus', SAM ufu 'the name of a fish' (Pratt 1878; not the general name for parrotfishes), TOK ufu 'general name for Scarus spp., parrotfish', PUK wū 'general name for parrotfish', NUK huuhuu 'a number of parrot fish spp.', KAP huhu 'parrot fish sp.', REN 'uhu 'parrot fish sp.', TIK ufu 'Scarus sp.', EAS

'uhuhanga 'Leptoscarus vaigiensis (Quoy & Gaimard), parrotfish', HAW uhu 'parrot fish spp.', TAH uhu 'Scarus lunula (Snyder)', MAN, CIM u'u 'Scarus spp.'

### #108 PPN \*lalafi 'wrasse or parrot fish spp.'

PCP \*dradravi (Geraghty)

TON, NTP lalafi 'Scarus sp.', EUV lalafi 'Cheilinus spp.', SAM lalafi 'Cheilinus sp. wrasse', TOK lalafi, lafilafi 'juvenile growth terms for Cheilinus undulatus', PUK lawi 'Sc. harid yellow parrotfish', lalawi 'Cheilinus undulatus, juvenile' (informant), 'Ch. unifasciatus' (Beaglehole & Beaglehole 1938), KAP llahi 'fish spp.'

A name which appears to have dropped out of Eastern Polynesian languages.

## #109 PPN \*?ulafi 'Scaridae spp.'

PCP \*qulapi 'parrot fish' (Walter 1989), \*?ulavi 'Scarus harid' (Geraghty)

EUV 'ulafi 'Scarus spp.', TOK ulafi 'Scarus sp., probably Sc. harid (Forskål), yellow parrot fish', TUV ulafi 'Scarus sp.', NUK, KAP ulahi 'parrot fish', LUA ulahi 'fish sp.', REN ugabi 'species of parrot fish with long pointed heads' (Elbert 1975), TIK urafi 'parrotfish'

## #110 PSO \*kulapo(o) 'parrot fish spp.'

TON kulapō 'k.o. fish', NTP kulapo (no semantic information), SAM 'ulapo 'full grown parrot fish' (Goo & Banner 1963), 'lighter-coloured species of genus Scarus...when about 6 inches long' (Milner 1966), TOK kulapo 'Sc. harid, juveniles'

Compare #84.

### #111 PPN \*kamutu 'Scarus sp.'

PCP \*kam(o,u)tu 'female Scarus sp.' (Geraghty)

TON kamutu, TOK kāmutu 'Scarus jonesi'

I have not myself been able to establish an identification for the Tongan reflex, but am including this name on the strength of Geraghty's PCP reconstruction, based on Tongan and Tokelauan and the Fijian  $k\bar{a}motu$  'Scarus sordidus, female'.

## #112 PPN \*mamanu 'Scarus spp., parrot fish'

TON mamanu 'parrot fish', SAM mamanu 'reddish-brown species of genus Scarus' (Milner 1966), TOK mamanu 'Sc. chlorodon (Forskål), ocean parrot fish', TUV mmanu 'Scarus spp.'

## #113 PSO \*la?ea 'parrot fish spp. with bulging foreheads'

SAM laea 'several varieties of large green and blue parrot fish', TOK laea 'Scarus jonesi (Streets), tattooed parrot fish, Sc. gibbus (Rüppell), big blue parrot fish', TUV laea 'Scarus sp.', REN ga'ea 'general name for some parrot fish', EAS ra'ea 'Cheilodactylus plessisi (Randall), morwong', HAW lae nihi 'name applied to various high-headed labroid fishes'

There is an obvious semantic connection with PPN \*la'e 'forehead', and the Hawaiian name is so obviously descriptive (lit. 'steep forehead') that it can't be regarded as necessarily part of the same set.

#### **BLENNIIDAE**

## #114 PPN \*(m,p)anoko 'Blenniidae spp., blennies'

NTP manoko, EUV panoko, EFU manoko 'nom d'un petit poisson', SAM mano'o 'gobies, mudskippers', NUK, REN manoko, TIK panoko, ANU panauko (Lincoln n.d.b), TAU

panoko, EAS pāroko 'blennies and gobies', HAW pāno'o, pāo'o 'name for several varieties of o'opu [PEP \*kookopu 'gobies']', MQS pāoko, MAO paanoko 'Cheimarrichthys fosteri, sandperch'

All glossed 'blenny' unless otherwise indicated.

The innovation of initial /p/ for /m/ is established throughout Eastern Polynesian, but its occurrence in other Nuclear Polynesian languages (East Uvean, Tikopian, Anuta and Taumako) requires explanation.

#### **ACANTHURIDAE**

#115 PPN \*manini 'Acanthurus triostegus (Linné), convict tang'

TON manini, NIU manini 'Cirrhites spp. handfish' (informant), EUV, EFU, SAM, TOK, PUK, KAP manini, LUA mannii, TIK, MEF manini, MQS menini, TAH, RAP, MAN manini

All reflexes except for Niuatoputapu glossed A. triostegus. For this species my informant gave the name tukusea. It is hard to imagine anyone making a mistake about such a striking and common variety, but nevertheless this information is suspect. Note that Niuatoputapu also has the form 'ulutuki for Cirrhites spp. (see #51 and cf. FIJ manini, which Geraghty (this volume) suggests may be a PN loan).

#116 PPN \*hapi 'Acanthurus guttatus (Schneider), spotted surgeon fish' PCP \*(c,s)abi (Geraghty)

TON (NTP), NIU hapi, EUV, TOK, TUV api, NUK, KAP abi, REN api 'some species of surgeonfishes', TIK api, HAW 'api, MQS 'api'api, TAH api, MAN 'api 'general term for many varieties of surgeonfish', CIM api

#117 PPN \*palani 'Acanthurus sp. of large size and elongate shape'

PCP \*mpalani 'Acanthurus sp.' (Walter 1989)

TON, NTP palangi 'A. xanthopterus (Cuvier & Valenciennes), yellow fin surgeon fish, A. bleekeri (Günther)', EUV palagi 'A. bleekeri', SAM palagi 'Acanthurus sp.', TOK apalani 'A. xanthopterus', TUV kapalangi, 'A. bleekeri', PUK palangi 'Acanthurus sp., similar to A. bleekeri', KAP balangi 'Acanthurus sp.', LUA palani 'Acanthurus sp.', REN pagangi 'Acanthurus sp.', WUV palangi 'Acanthurus sp.', HAW palani 'A. dussumieri (Valenciennes)', MQS pe'aki (North), pe'ani 'A. bleekeri' (South), TAH para'i 'A. xanthopterus', MAN parangi 'large surgeon fish, a rare catch', CIM (maito) parangi 'A. xanthopterus'

All reflexes are regular except for the Tokelauan one, in which the velar nasal is replaced by an alveolar nasal and there is an initial a. For the maito of the Cook Islands Maori form, see below PEP \*maito.

#118 PPN \*?alogo 'Acanthurus sp., probably A. lineatus (Linnaeus)'

TON, NTP 'alongo 'A. lineatus, zebra surgeon fish' (Dye 1983), EUV 'alogo 'A. lineatus', SAM alogo 'A. lineatus', TOK alogo 'Ctenochaetus striatus (Quoy & Gaimard), surgeon fish', LUA ologo 'bristle-tail surgeon fish', REN 'agongo 'A. lineatus', TIK arongo 'A. lineatus'

Eastern Polynesian languages appear to contain no reflexes of this etymon. For the Tokelauan semantic shift, see also *pone*, below. The initial glottal stop in the Niuatoputapu and East Uvean forms suggests that they are borrowed from Tongan.

#119 PPN \*ma<sup>7</sup>ito 'Acanthuridae, possibly Ctenochaetus striatus (Quoy & Gaimard)' PCP \*ma<sup>7</sup>eto 'Ctenochaetus' (Geraghty)

NIU meito 'C. striatus', EUV ma'ito 'C. striatus', TUV maito 'A. achilles (Shaw), red-spotted surgeon fish' (Zann 1980), REN ma'ito, PUK maito 'similar to ma but with red stripes on the back' (Beaglehole & Beaglehole 1938), EAS ma'ito 'A. leucopareius (Jenkins)', HAW maiko, maikoiko 'Acanthurus spp.', TAH maito 'C. striatus', RAP maito 'C. striatus, A. nigrofuscus (Forskål)', TUA maito 'variety of fish', CIM maito 'C. striatus and Zebrasoma spp.'

Bacquie's (1977) data for Cook Islands Maori suggests that *maito* is the generic term for *Acanthurus* spp. He cites a number of secondary lexemes, including *maito parangi* 'A. *xanthopterus*'.

### #120 PPN \*pone 'Acanthurus sp. or Ctenochaetus striatus'

TON pone 'C. striatus and Acanthurus sp.', NTP pone, ponelei 'C. striatus, EUV pone 'Acanthurus spp.', SAM pone 'Acanthurus spp. when about 6 inches long' (Milner 1966), pone i'umumu 'A. achilles, red spotted surgeon fish' (Goo & Banner 1963), ponepone 'C. striatus' (Jordan & Seale 1906), TOK pone 'A. achilles', pone lolo 'C. striatus in spawning season', TUV pone 'Ctenochaetus sp., A. olivaceous', pone lolo 'C. striatus' (Zann 1980), PUK ponepone 'Chaetodon sp.', TIK pone 'surgeonfish (Acanthurus spp.), dark coloured (incl. red-spotted, yellow-spotted, bristle-toothed), said by Tikopia to be younger growth stage of ma [A. bleekeri]. May also include anemone-fish and clownfish of various types.' (Firth 1985)

The situation in Tokelauan is curious: *C. striatus*, generally named *alogo*, is called *pone* when it forms schools at spawning season and is netted on the reef in huge quantities, after the first thunderstorm in September. The extension of this name to other genera in Pukapukan and Tikopian can be accounted for by the bright colouring of the species in question.

Geraghty (this volume) comments that FIJ pone 'Acanthurus sp.' may be a Polynesian loan.

## #121 PPN \*?ume 'Naso sp., unicorn fish'

PCP \*?ume (Geraghty), POC \*qume (Walter 1989), PAN \*qumay/\*qumi

TON, NTP 'ume 'Naso unicornis (Forskål)', EUV, EFU 'ume 'generic term for genus Naso', 'ume tā 'N. unicornis', SAM, TOK, TUV, PUK, TIK ume, WUV ume 'Acanthuridae', HAW 'ume, MQS, TAH, TUA, MAN, CIM ume

Wide distribution and complete regularity except for the initial glottal stop in Hawaiian. Dye (1983:270) and Rensch (1983:72) give a number of varietal names.

## #122 PNP \*ta(a)tifi 'Naso spp., unicorn fish'

TOK tātifi 'N. rigoletto (Smith), hunchback unicorn fish, N. brevirostris (Valenciennes), short-nosed unicorn fish, N. herrei, long-horn unicorn fish', TIK, ANU tātivi 'N. unicornis', TAH tatihi 'N. brevirostris, short-nosed unicorn fish', TUA tatihi 'unicorn fish'

## #123 PPN \*ma(h,s)a 'Acanthurus sp.'

TON maha 'k.o. leatherjacket' (Churchward 1959), PUK mā 'C. striatus', mā pate 'H. bariene i.e. Acanthurus spp. (Beaglehole & Beaglehole 1938)', TIK ma [sic] 'Acanthurus

bleekeri' (Firth 1985), TAU mā 'A. xanthopterus', REN masa 'k.o. small fish', MEF maa, WFU hmaa 'dark surgeon fish sp., like Acanthurus pyroferus (Kittlitz)' (Fakamuria n.d.), MQS maha 'A. pyroferus', maha puafau 'A. glaucopareius (Schneider)', RAP ma'ama'a 'A. leucopareius (Jenkins)'

A somewhat puzzling set, Nuclear Polynesian reflexes with a long vowel suggesting PPN \*maha, those with /h/ or /s/ suggesting \*masa. However, on the basis of FIJ masa 'Zebrasoma scopas', Geraghty (this volume) reconstructs PCP and PPN \*masa. The short vowel in the Tikopian form is undoubtedly due to the orthographic conventions of the source.

#124 PPN \*?afali 'Acanthurus sp.'
PCP \*?avali (Geraghty)
NTP ?afali 'A. blochii', REN ?ahagi 'Acanthurus sp.'

#### **GEMPYLIDAE**

#125 ?\*palu 'Ruvettus pretiosus (Cocco), oilfish'

TON valu maka 'R. pretiosus', palu maka 'Thyrsitoides marlayi, snake mackerel (both from Mead 1980b), NIU palu, palu pō, palu tehī, TOK palu, palu pō, palu gatae, palu tupua, TUV palu, palu maoni 'true palu (which include palu fala and palu lavenga)', PUK palu, palu taeyi, pala fala, TIK paru fara, HAW valu, TUA pāruhi 'a variety of fish, the ruvettus oilfish' (Anaa Is)

On purely linguistic grounds, palu can be reconstructed for PPN with the identification Ruvettus. However, see Hooper (1991) and section 4, for a discussion of other factors, including archaeological evidence, which suggest that Ruvettus fishing may have been a late Samoic-Outlier development, originating in the area of Tuvalu and Tokelau. Similar considerations affect the reconstruction of a precise identification for \*kapoa (below). Although Ruvettus fishing was not practised in Tonga, Mead (1979) gives a term for the fish, valu maka. This may be a coinage analogical to palu maka. However, see also the Hawaiian form valu which presents a problem (discussed in Hooper 1991), and cf. PPN \*walu, #132.

#126 PPN \*kapoa 'fish sp., probably Plotosus sp., catfish'

TON kopoa 'catfish', NTP kopua (no semantic information), EUV kapoa 'Plotosus lineatus (Thunberg), catfish', SAM 'apoa 'Plotosus anguillaris (Bloch)' [synonym of the above], TOK, PUK kapoa 'Promethichthys prometheus (Cuvier), snake mackerel', MEF ikaapoa 'Plotosus anguillaris' (tentative identification)

This term is included under Gempylidae for convenience, on the basis of the Tokelauan and Pukapukan reflexes, as no other terms for catfish were reconstructable. An elongate shape provides the semantic continuity between these two species. *P. prometheus* is caught in association with *Ruvettus*, and the absence of a word for this species in Tongan and Samoan is explained by the fact that *Ruvettus* fishing was not practised in those islands. In Eastern Polynesian languages the word for *Promethichthys* is usually *mangā*.

### #127 PPN \*manaa 'fish sp.'

PEP \*manaa 'Promethichthys prometheus, snake mackerel'

TON, NTP mangā 'fish sp.', EUV maga 'fish sp.', TAH manā 'P. prometheus', TUA, MAN, CIM mangā 'P. prometheus', MAO mangā 'Thyrsites atun (Gempylidae)'

The NIU name for P. prometheus is matimati, a local innovation.

According to Nordhoff (1930:225-226), the Tahitian name is borrowed from Cook Islands Maori, with the irregular correspondence /n/ instead of /7/ for CIM /n/.

The New Zealand Maori form shows excellent semantic correspondence: of the two members of this family familiar to the Maori, the barracouta resembles *P. prometheus* the most closely.

### **SCOMBRIDAE**

### #128 PPN \*pa?ala 'Acanthocybium solandri (Cuvier), wahoo'

PRO \*mpanda 'A. solandri' (Walter 1989)

NIU paala 'A. solandri' (Mead 1980a), EUV pa'ala 'Scomberomorus commerson (Lacépède), Spanish mackerel', (Rensch 1983), SAM pāla 'k.o. fish', TOK, TUV, PUK pāla 'A. solandri', LUA pala 'large scaled tunny fish', TIK pāra 'A. solandri', TAH paere, MAN pa'ara 'A. solandri' (Clerk 1981), CIM paara 'A. solandri' (Bacquie 1977), MAO paara 'Lepidopus caudatus, frostfish'

The Tahitian word for wahoo is so divergent that it perhaps should not be included in this set. This large, powerful and predatory pelagic fish is an important food source for those areas where it is caught. Other names make reference to its shape or habits, for example HAW and TUA ono, a name usually associated with barracuda, Sphyraena spp., also TUA roroa ('long'). The New Zealand Maori referent L. caudatus belongs to the same suborder of Scombroidei and is a slender, sharp-toothed, scaleless fish described by Ayling and Cox (1982) as "excellent eating".

### #129 PPN \*?atu 'Katsuwonus pelamis (Linnaeus), skipjack'

PCP \*?atu 'bonito' (Geraghty), POC \*qatu 'bonito' (Walter), PAN \*qatun 'tuna'

TON 'atu, EUV 'atu, EFU, SAM, TOK, TUV, PUK atu, NUK, KAP adu, LUA aku, REN 'atu, TIK atu, TAU atu 'Parathunnus mebachi (Kishinouye), big-eye tuna, Cybiosarda elegans, leaping bonito, Istiompax marlina, black marlin', HAW aku, TAH atu (obsolete, found only in Davies (1851), glossed 'the same as auhopu'), CIM atu, MAO atu(haakona) 'a fish', atu(rere) 'a fish, highly prized' (Williams 1957)

All glossed K. pelamis except where otherwise indicated. The fact that Lincoln's material does not include names for K. pelamis seems to me to cast some doubt on the identifications given for TAU atu. In Tahitian, atu has been replaced by auhopu, and this term has been borrowed into Easter Island as 'auhopu and into Cook Islands Maori as au'opu, synonymous with atu.

### #130 PPN \*taku(a,o) 'large tuna or skipjack'

TON takuō 'k.o. fish' (Churchward 1959), NIU takua 'Katsuwonus pelamis', SAM ta'uo 'large bonito caught by trawling from cutters' (Milner 1966), TOK takuo 'Neothunnus macropterus (Schlegel), yellowfin tuna, when very large', TUV takua 'N. macropterus yellow fin tuna, over 8 kg.' (Zann 1980), PUK takuo 'obsolete term, but known from chants; a fish caught by noosing' (K. Salisbury, pers.comm.), NUK, KAP dagua 'yellowfin

tuna', REN takua 'k.o. very rare porpoise', TIK takua 'Xyphias gladius, swordfish, Makaira indica (syn. Istiompax indicus), black marlin'

A term which appears to have disappeared from Eastern Polynesian languages. The semantic shift in the Tikopian case is a not unlikely one.

#131 PNP \*kakasi 'Thunnus albacares (Bonnaterre), yellowfin tuna'

TOK kakahi 'T. albacares and T. obesus, of medium size', TUV kkasi (Besnier 1981), kasi (Zann 1980) 'yellow fin tuna, under 8 kg.', PUK kakai, kakayi in traditional chants (K.Salisbury, pers.comm.), KAP gahi-dua-motu, gahi-di-awa 'tuna spp.' (Lieber & Dikepa 1974), TIK kasi 'Thunnus sp.', EAS kahi 'Thunnus spp.' (see Randall & Cea Egaña 1984 for varieties), HAW'ahi, MQS kahi, TAH 'a'ahi, RAP ikai, TUA kakahi, MAN a'ai (Clerk 1981), CIM a'a'i

All glossed 'yellowfin tuna' except where otherwise indicated. The Pukapukan reflex may be the result of a tendency in Pukapukan to elide /y/ in intervocalic position (K. Salisbury, pers.comm.). The Cook Islands Maori form for its part seems to have been borrowed from Tahitian, with subsequent substitution of glottal stop for /h/. The Rapa form is very irregular but seems worth including.

### #132 PPN \*walu 'Scombridae'

PNP \*walu 'Gymnosarda unicolor (Rüppell) dog-tooth tuna' (syn. Gymnosarda nuda) PCP \*walu (Geraghty)

TON valu 'general name for tuna spp.', valu louniu 'wahoo', NTP valu 'G. unicolor', NIU valu 'the king fish' (McEwen 1970), EUV valu 'genus Thunnus, generic term', TOK valu 'G. unicolor when large', TUV valu 'G. nuda' (Zann 1980), NUK valu 'fish sp.', KAP walu 'fish sp.', LUA valu 'G. unicolor', TIK varu 'large sea fish (said to be up to 2 m.)...id. as prob. Thunnus orientalis or as Gymnosarda unicolor', WFU waru(kago) 'yellowfin tuna' (Fakamuria n.d.), EAS va'u, HAW walu 'Ruvettus pretiosus', MQS va'u, TAH varu (Davies 1851), va'u (Lemaitre 1973), RAP vao, TUA (Napuka Island) vau 'G. unicolor', (Conte 1988:319), MAN, CIM varu

Dye (1983) for Niuatoputapu, Rensch (1983) for East Uvean and Firth (1985) for Tikopian list a number of binomials denoting varieties of tuna. Once again the Rapa reflex is irregular. The modern Tahitian form can be compared with va'u 'eight' for expected varu. The Easter Island and Tuvaluan forms are presumably borrowed from Tahitian or Marquesan. See Hooper (1991) for comments on the presumed semantic shift in the Hawaiian form.

#133 PNP \*tawatawa 'Euthynnus yaito, black tuna, or G. unicolor, juvenile'

TON kavakava 'Euthynnus yaito' (Kirch & Dye 1979), SAM tavatava 'name given to bonito when about one foot long' (Milner 1966), TOK tavatava 'Gymnosarda unicolor when 18 - 24 inches', PUK tavatava 'G. unicolor', KAP dawadawa 'small tuna', HAW kawakawa 'E. yaito' (Gosline & Brock 1965), 'Gymnosarda alleterata (Rafinesque)' (Jordan & Evermann 1973 [1903]), MQS tavatava 'E. yaito', TAH otava 'E. yaito', MAO tavatava 'Scomber australasicus, blue mackerel'

Note also Kiribati tawatawa 'G. unicolor' (Taumaia & Gentle 1983). This name presents difficulties of identification possibly complicated by synonymy of scientific terms. I am confident of the Tokelauan identification, both on morphological grounds and because tavatava is one of the most delicious eating fish of this family, with moist white flesh; Bagnis

et al. (1972:325) describe *E. yaito* as 'dry and tasteless', and Herald (1962:228) mentions its less desirable dark meat.

The New Zealand Maori retained this name for what was probably the only member of this family accessible to their fishing methods.

The irregular correspondence (/k/ for /t/ elsewhere) in the Tongan form cited in Kirch and Dye (1979:67) makes a PPN reconstruction problematic. Moreover this identification is inconsistent with a later one made by Dye (1983:168), who tentatively glosses NTP kavakava as Terapon sp. and cites Tongan and Samoan cognates. Is it possible that this identification was made on the basis of the Milner (1966) dictionary entry? Of course the Tongan term may refer to both fish, but if so my informant in 1978 was not familiar with it. Teraponidae or 'tigerfish' do not resemble tunas at all, and are not closely related to them. However their appearance is consistent with Churchward's (1959) gloss. I give this cognate set below for comparison; it is too small and its status too dubious to warrant a PPN reconstruction. Note also Geraghty's reconstruction of PCP and PPN \*kawakawa 'Labridae sp.' on the basis of Fijian and Eastern Polynesian reflexes, and his comment on the relation of this to the meaning 'Teraponidae sp.'.

TON kavakava 'k.o. fish having small scales and longitudinal stripes: the scavenger fish' (Churchward 1959), NTP kavakava 'Terapon jarbua?' (Dye 1983), EUV kavakava 'Therapon jarbua (Forskål)' (Rensch 1983), EFU kavakava 'nom d'un poisson' (Rensch 1986), SAM 'ava'ava 'Terapon sp.' (Milner 1966)

#### **XIPHIIDAE**

#134 PPN \*sakulaa 'swordfish, sailfish'

PAN \*sakulayaR

TON hakulā, NIU hakulā, haku tangata 'Xyphias gladius (Linnaeus), Makaira sp., swordfishes', EUV hakulā 'Makaira mazara (Jordan & Snyder)', SAM sa'ulā, TOK hakulā 'X. gladius and other swordfish spp.', TUV sakulā, PUK akulā, NUK sagulaa, KAP hagulaa 'sailfish, swordfish' LUA sa'ulaa 'southern marlin', TIK sakura 'sailfish', ANU te kura 'black marlin', TAU te kulaa 'sailfish', HAW a'u, MQS haku'ā 'Makaira spp.' TAH ha'urā, TUA hakurā 'black marlin', CIM 'akurā, MAO haku 'Seriola grandis, kingfish', hakuraa 'Scamperdown whale' and 'Polyprion oxygeneios grouper, when large (syn. of hapuku)'

Compare PPN \*laa 'sail'. This morpheme has disappeared from the Hawaiian reflex and from some forms in Niuatoputapu and New Zealand Maori. All reflexes are identified as swordfish, marlin etc. except for New Zealand Maori. The semantic shift of MAO haku to another pelagic gamefish, the kingfish, is well motivated, but somewhat surprising: X. gladius was known to the Maori, who called it paea. The referents of MAO hakuraa are even less explicable.

### **SCORPAENIDAE**

#135 PPN \*nofu 'Synanceja verrucosa (Bloch & Schneider); Scorpaenidae spp., scorpion fish and stone fish spp.'

PCP \*novu (Geraghty), POC \*nopu, (Walter 1989), PAN \*nepuq

TON, EUV, EFU, SAM, TOK, TUV nofu, PUK nou, NUK, KAP, LUA, REN, TIK, WUV nofu, EAS, HAW, MQS, TAH, TUA nohu, MAN, CIM no'u, all glossed 'scorpion

fish', MAO *nohu* 'a fish with poisonous spines, like a porcupine fish, but reddish in colour' (Williams 1957).

A folk generic that is widely reflected, as befits a dangerous and singular-looking species. Many binomials are recorded. Note also MAO matuawhapuku 'grandfather hapuku', the most common name for the scorpion fish Scorpaena cardinalis.

#136 PSC \*saku(saku)lele, PEP \*tataraihau 'Pterois spp., zebra fish'

EUV hauhaulele 'Pterois spp.', SAM sa'ulele 'k.o. fish' (Milner 1966), TOK hakuhakulele 'P. antennata (Bloch)', KAP hauihau 'P. volitans (Linnaeus)', TIK sakurere 'spiny reef fish...Recognised as dangerous since spines can injure person though fish small' (Firth 1985), TAH tataraihau 'Pterois spp.', MQS ta'ata'aihau 'Pterois spp.', CIM tataraiau 'Pterois spp.' (Bacquie 1977).

It is difficult to know if this is two cognate sets or one, as the Kapingamaringi form appears to relate to the Eastern Polynesian ones, and the East Uvean form appears to be a hybrid (cf. \*talatala 'prickly' and \*haku 'needlefish etc.'). The segment hau in Kapingamaringi, East Uvean and Eastern Polyneisan languages suggests a Samoan origin.

#### **BALISTIDAE**

One of the few families for which there is a general name, with numerous secondary lexemes denoting species and varieties recorded in individual languages.

### #137 PPN \*sumu 'Balistidae'

PCP \*cumu (Geraghty), POC \*sumu (Walter)

TON, NIU, EUV humu, EFU, SAM sumu, TOK humu, TUV sumu, PUK umulenga 'Balistes capistratus', yimu 'Balistes ringens' (both from Beaglehole & Beaglehole 1938), NUK sumu, KAP humu, REN, TIK, ANU, MEF, WFU, WUV sumu, HAW humuhumu, MQS humu, TUA humu 'Katsuwonus pelamis, skipjack; Thunnus obesus, big-eye tuna' ((Napuka Island), Conte 1988:289)

The Tuamotuan (Napuka) lexeme shows a most extraordinary semantic shift to two species of the family Scombridae. The reduplicated form *humuhumu* is the generic term in East Uvean and Hawaiian. A number of secondary lexemes are recorded for most languages, but most of these are local innovations. Only the following sets appear to be distributed more widely.

#138 PNP \*sumulena 'Balistapus undulatus (Park), red-lined triggerfish'

TOK humulega 'B. undulatus', TUV sumulenga 'Melichthys sp.', PUK umulenga, TIK, ANU sumu renga 'B. undulatus'

Compare PPN \*rena 'turmeric; reddish-yellow colour'.

#139 PNP \*7umekaleva or sumukaleva 'Balistidae, probably Alutera scripta (Osbeck), figured leather-jacket'

NTP 'umekaleva (no semantic information), EUV 'ume kaleva 'A. scripta', humuhumu kaleva 'Sufflamen fraenatus (Richardson)', SAM ume'aleva 'Aluteres sp.' (Milner 1966), TOK humu kaleva 'A. scripta', TUV sumu kaaleva, PUK kālevaleva 'A. scripta', TIK, ANU sumu kāreva 'A. scripta', HAW 'o'ili lepa 'A. scripta and Cantherines sp.' (cf. kokiri), MQS kā'eva'eva, TAH pareva 'A. scripta', TUA (kōkiri) karava 'Balistes sp.'

#140 PEP \*kookili 'Balistidae spp., trigger fish, general term'

PUK kōkili, EAS kokiri, HAW 'ō'ili (uwiuwi), 'ō'ili (lepa)', TAH 'ō'iri, TUA kōkiri, CIM kōkiri

Another term which Pukapukan shares with Eastern Polynesian languages.

#### TETRAODONTIDAE and OSTRACIONTIDAE

#141 PPN \*te?ete?e 'Arothron and Canthigaster spp., pufferfishes'

PCP \*jexejexe (Geraghty)

TON, NTP te'ete'e, NIU tētē, EUV te'ete'e 'generic term for some species of Arothron', SAM tētē 'immature globe fishes' (Milner 1966), TOK tētē 'Arothron meleagris (Bloch & Schneider), white spotted pufferfish', KAP deedee 'Sphaeroides annulatus, Gulf pufferfish', REN te'ete'e, HAW kēkē 'A. hispidus', TAH tētē 'name of a small fish' (obsolete, Davies 1851 only), CIM tētē

### #142 PPN \*tautu 'Diodon spp., porcupine fish'

PCP \*tautu (Geraghty), PAN \*taRutum/ŋ 'puffer / porcupine fish'

TON toutu, toutufala 'k.o. fish' (Churchward 1959), NTP toutu 'spiny puffer', NIU toutu 'Diodon spp.', EUV tautu (juvenile), tautufala 'Diodon spp.', EFU ta'utu 'nom d'un poisson velu' (Rensch 1986), SAM, TOK tautu, TUVtautau, NUK daudu 'spiny puffer fish', KAP doudu, LUA kauku, REN, TIK, WFU, WUV tautu

A PPN generic term replaced in Eastern Polynesian languages by \*tootara, see next entry. My Tongan informant did not know toutu, and gave sokisoki, a Fijian borrowing, as the name for porcupine fish.

### #143 PEP \*tootara 'Diodon spp., porcupine fish'

PUK tōtala, EAS (titeve) taratara 'Chilomycterus affinis (Günther), porcupine fish', HAW kōkala, MQS tōta'a, TAH, TUA, CIM tōtara, MAO (kōpū) tootara

A generic term, with many binomials at species level. Again, note the existence of a Pukapukan reflex.

## #144 PNP \*sue 'pufferfish spp.'

EUV hue 'generic term for some species of Arothron', EFU sue 'nom d'un poisson' (Rensch 1986; description not inconsistent with pufferfish), SAM sue 'Arothron and Canthigaster spp.', TOK hue, TUV sue 'Arothron spp.' (Vaitupu dialect; Zann 1980), PUK yue, LUA su'e 'cowfish, toadfish', TIK sue 'globe-fish and pufferfish spp.', EAS (titeve) huehue 'Sphoeroides pachygaster (Müller & Troschel), pufferfish sp.', HAW (o'opu) hue 'pufferfish sp.), MQS huehue(kava) 'Arothron and Canthigaster spp.', TAH huehue 'Arothron spp.', TUA hue 'pufferfish spp.', MAN, CIM 'ue'ue 'pufferfish spp.', MAO [upokohue 'porpoise']

A descriptive name; cf. \*sue 'gourd, calabash'.

### #145 PPN \*moamoa 'Ostraciontidae, boxfish'

PCP \*moamoa (Geraghty)

TON, NTP mōmoa 'Ostracion and Lactoria spp., boxfish and cowfish', EUV, SAM, TOK, TUV, PUK moamoa 'Ostracion or Lactoria spp.', NUK moomoa, KAP (dege)moomoo, LUA momoa, REN moamoa, TIK, ANU momo(aka), TAU momo(vaka), momo(hatu), WFU moamoa, EAS momo(tara), HAW moa, moamoa, MQS momo'oa(ohaka), momo(haka), TAH momoa, MAN moamoa

All reflexes defined as varieties of boxfish, trunkfish or cowfish.

#### **SIGANIDAE**

### #146 PPN \*ma?awa 'Siganus sp., rabbitfish'

PCP \*ma?awa (Geraghty)

TON ma'ava 'S. fuscescens (Houttuyn)', TOK maeava 'S. rostratus (Valenciennes)', TUV maiava 'Siganus sp.', PUK mālava, MQS ma'ava 'Siganus argenteus (Quoy & Gaimard), also Aphareus furcatus (Nuku Hiva)', TAH, TUA marava, MAN morava, CIM mōrava 'S. rostratus' (Bacquie 1977)

For the phonological irregularities, see discussion in Geraghty (this volume).

### #147 PPN \*oo 'tuna baitfish, such as the fry of Siganus or Caesio spp.'

TON  $\bar{o}$  'k.o. fish; small, with poison back fins' (Churchward 1959; almost certainly Siganus), NTP  $\bar{o}$  'rabbitfish', EUV  $\bar{o}$  'Siganus sp.', SAM  $l\bar{o}$  'the name of a fish' (Pratt 1878), TOK  $\bar{o}$  'Lepidozygus sp.',  $l\bar{o}$ tala 'Siganus sp. (juvenile)', TUV  $\bar{o}$  'small reddish baitfish' (Gillett 1985, pers.comm., from informant; see also Kennedy (1931), who describes  $\bar{o}$  as 'silver and bluish-green'), PUK  $w\bar{o}$  'a tiny deep-sea minnow, comes close to the reef in large schools' (Beaglehole & Beaglehole 1938; my informants described a fish with the same behavioural characteristics as TOK  $\bar{o}$ ), MAO oia 'Caesioperca lepidoptera, butterfly perch'

This set is included here for convenience, because a number of reflexes refer to the fry of the genus *Siganus*. See section 4, for a discussion of the problems associated with this name. The New Zealand Maori fish name *oia* seemed worth including as the species is pink in colour, becoming red when removed from the water, and like the tropical species described above feeds on plankton and swims in schools (Ayling & Cox 1982:208).

#### APPENDIX 3: FINDERLIST

*alaala(futu)	#61	*hafulu	#90
*ali	#33	*haku	#20
*aseu	#57	*hapi	#116
*ewe, wewe	#48	*huli	#67
*faafaalua	#9	*ise	#19
*faaLoa	#46	*kafa	#40
*faapuku	#42	*kakasi	#131
*fai	#6	*kaloama	#93
*fai kili	#8	*kamai	#69
*fai manu	#7	*kamutu	#111
*faŋamea	#74	*kanahe	#37
*fiLoa	#82	*kapoa	#126
*filu	#60	*kata	#59
*fua(fua)	#39	*kiokio	#10

*kookili	#140	*muu	#79
*komuli	#56	*naiufi	#4
*kopelu	#68	*(na)nue	#96
*kulapo	#84, #110	*nifa	#15
*kumikumia	#41	*nofu	#135
*kuru	#31	*ŋatala	#45
*lalafi	#108	*ŋutula	#83
*la <sup>?</sup> ea	#113	*ŋutuloa	#105
*lai	#65	*00	#147
*laulaufau	#98	*pakewa	#63
*loi	#47	*palaŋi	#117
*luhi	#54	*palu	#81, #125
*lupo(lupo)	#55	*pap(o,u)	#102
*maalolo	#24	*patuki	#51
*ma(h,s)a	#123	*pa?ala	#128
*m(a,o)lali	#104	*pone	#120
*maLa(tea)	#103	*pusi	#13
*malau	#26	*sa(a)putu	#73
*malauloa	#27	*safole	#49
*malauta <sup>?</sup> a	#30	*sakulaa	#134
*malili	#91	*saku(saku)lele	#136
*mamanu	#112	*sali(i)	#18
*manifi	#87	*saosao	#36
*manini	#115	*(s,t)apatuu	#35
*(m,p)anoko	#114	*saraa	#17
*талаа	#86, #127	*sasaa	#16
*талоо	#1	*sasawe	#23
*masimasi	#70	*sawane	#78
*matapula	#32	*seseLe	#50
*mata <sup>?</sup> italiŋa	#3	*sipa	#25
*matu	#88	*soke(lau)	#62
*matu <sup>?</sup> ulau	#94	*sue	#144
*ma <sup>?</sup> awa	#146	*sumu	#137
*ma <sup>?</sup> ito	#119	*sumukaleva	#139
*memea	#92	*sumuleŋa	#138
*moamoa	#145	*suŋale	#101
*тоала	#95	*taae <sup>9</sup> a	#76
*munua	#43	*ta(a)mule	#85
*mutu(mutu)	#99	*ta(a)tifi	#122

*tafa <sup>?</sup> uli	#53	*tupou(pou)	#22
*t(a,o)kape	#77	*tuna	#14
*taku(a,o)	#130	*uliseŋa	#67
*talakihi	#28	*'ulutuki	#51
*talatala	#28	*walu	#132
*talitali <sup>?</sup> uli	#100	*wete	#89
*tanifa	#2	*(w)ewe	#48
*taŋafa	#106	*?afali	#124
*taŋa?u	#72	*?aloŋo	#118
*taotao	#21	*?aso	#5
*tataraihau	#136	*?atu	#129
*tautu	#142	*?atule	#66
*tawatawa	#133	*?atu?alo	#64
*ta?a	#29	*?aua	#38
*ta <sup>?</sup> iwa	#75	*?awa	#11
*teu	#58	*?ono	#34
*te?ete?e	#141	*?ufu	#107
*tifitifi	#97	*?ulafi	#109
*tikawa	#71	*?ulua	#52
*toke	#12	*?ume	#121
*tonu	#44	*?umekaleva	#139
*tootara	#143	*?utu	#80