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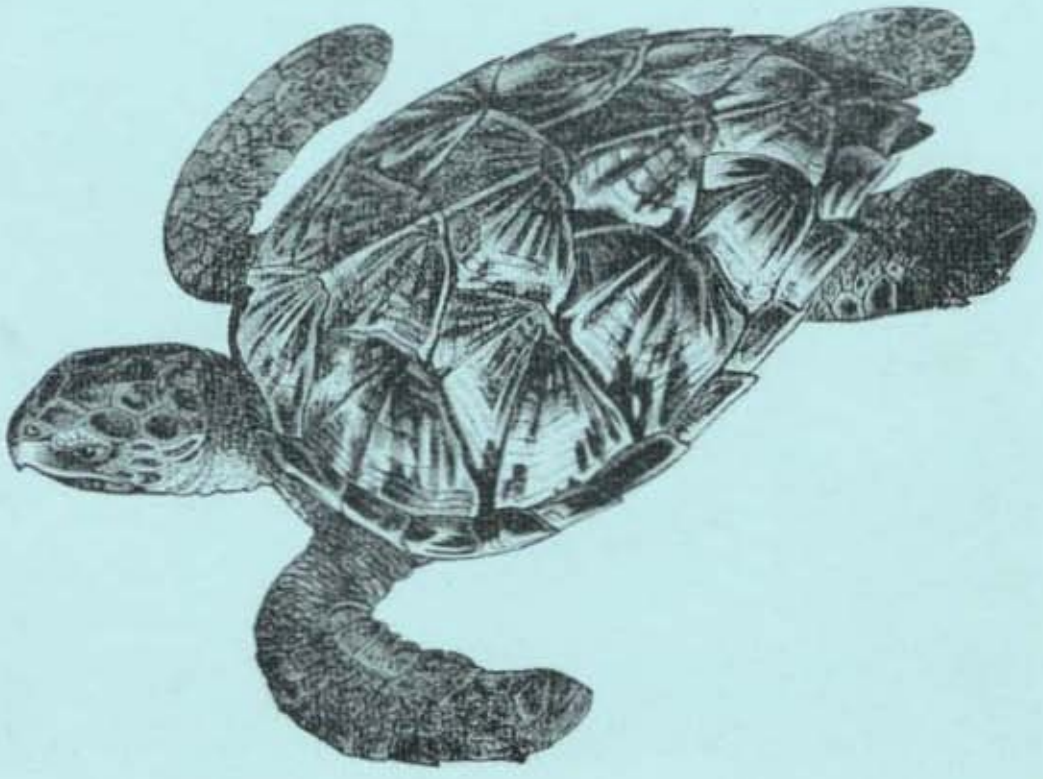

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Cover illustration: Hawksbill turtle

Artist: Unknown nineteenth century artist

Rose Atoll: an Annotated Bibliography

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ABSTRACT. Over 290 citations of published monographs, articles from learned journals, periodical features, official reports, letters, notes, some limited circulation and/or unpublished documents, and unofficial reports, concerned with the geology, geography, pedology, biology, meteorology, oceanography and history of Rose Atoll, American Samoa, are indexed and annotated.

RODGERS, K.A., I.A.W. McALLAN, C. CANTRELL & B.J. PONWITH, 1992. Rose Atoll: an annotated bibliography. Technical Reports of the Australian Museum 9: 1–37.

Rose Atoll lies at the extreme eastern end of the Samoan island volcanic chain (14°32'S 168°08'W), 240 km east-south-east of Pago Pago Harbor (Fig.1). It is of a roughly square shape. The fringing reef and lagoon together cover just 640 ha making it one of the smallest atolls in the world. The fetch of the lagoon is about 2 km and the maximum depth about 20 m. The coralline algal reef has a uniform, 500 m width and is largely submerged at low tide. A single channel in the north-east, 1.8-15 m deep, links the lagoon to the sea.

The atoll is one of the least disturbed areas of the world. Its benthic community is unique in Samoa, being dominated by encrusting coralline algae, and having a relative abundance of soft corals with a comparable impoverishment in hard species (Itano, 1987, cited in United Nations Environment Programme, 1988). The atoll has been established as a National Wildlife Refuge since 5 July 1973, and annual resource surveys are carried out by US Fish and Wildlife Service and American Samoan Government personnel. These include both the lagoon and outer reef as well as the islets, thus affording an invaluable scientific baseline for biological and geological studies of low Pacific islands.

Excellent summary reviews of the history and natural history of the atoll are given by Setchell (1924) and Sachet (1954). A highly detailed, up-to-date account of the terrestrial biology is contained in Amerson *et al.* (1982a,b).

Geological and Biological Notes

The Samoan Islands are part of a chain of seamounts, shallow banks and drowned atolls which extend 1700 km to the north-west. All are volcanic in origin and lie in a line with the correct orientation to have been generated by the present motion of the Pacific plate over a fixed hot spot (Natland, 1980; Menard, 1986). Both the size of the islands, and the proportion of them covered by Quaternary lava flows, increases to the west, in contrast to the Hawaiian, Society, and Marquesas chains. In these lineaments, submerged volcanic mounds, both drowned and capped by atoll reefs, occur at the western end, but in the Samoan chain Rose Atoll lies to the east. The age of Rose's volcanic substrate is not known, but it could be very young (Natland, 1980 but *cf.* Menard, 1986). Unlike the seemingly more mature, drowned atolls and flat banks to the west, Rose lacks wide offshore banks.

In his studies of the petrology of the Samoan chain, Natland seems to have been unaware that basalt rocks had been reported and recovered from Rose (e.g., Natland, 1980; Natland & Turner, 1985). The nature of these particular rocks, and even their very existence, has been a subject of some confusion in the literature. They were first reported by members of the United States Exploring Expedition (e.g., Couthouy, 1844; Wilkes, 1844; Dana, 1851; Pickering, 1876). Mayor (1921b, 1924b) specifically looked for but failed to find any trace of them and he and Setchell (1924) dismissed the earlier reports as incorrect identifications of weathered limestone. However, Schultz (1940, 1943), located and collected from a dozen basalt boulders lying loose on the reef flat. Sachet (1954) reported that Gilbert Corwin of the US National Museum had identified the samples as olivine basalt.

There are only two islets upon the reef (Fig.1,2): Rose Island in the east and Sand Island to the north. Total land area is 7.77 ha. Aggradation and degradation are active around the islets' margins and published descriptions of the atoll indicate that variation has occurred in area, shape and even position of the islets within historic times (e.g., Mayor, 1921b; Setchell, 1924; Bryan, 1938; Schultz, 1943; Amerson *et al.*, 1982a; Ludwig, 1982a; *cf.* Sachet, 1954: 1-2; and see Figs 1,3a-c,4a-d). Rose displays the dynamic character so typical of low islands in general, and atolls in particular. Perhaps, the small size of the atoll has helped heighten different observers's awareness of its active physical environment. The following descriptions are taken in large part from United Nations Environment Programme (1988) report of Susan Wells.

Rose Island is located on the lagoon half of the reef in the windward corner of the atoll square (Fig.1). It is a roughly oval islet about 180 x 200 m, covering 5.18 ha, having a 1.0 km shoreline, and a maximum altitude of 3.0 m (Fig.2). It consists of raised reef rock and a coquina of worn fragments of lithothamnium, *Favites, Porites, Symphallia, Pocillopora, Acropora, Tridacna,*

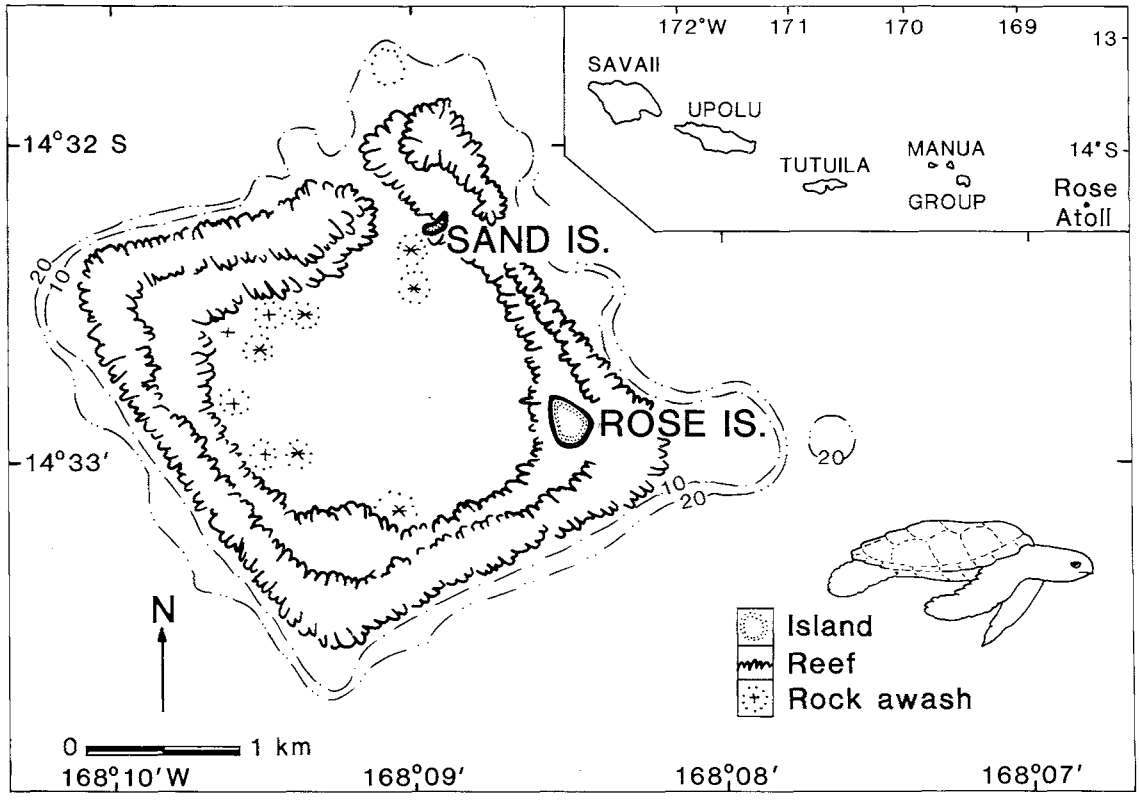

Fig.1. Sketch map of Rose Atoll, after Amerson *et al.* (1982a). Insert indicates location of Rose within the Samoan island chain.

gastropod shells and echinoderms. A phosphatic soil, rich in humus has developed on the coquina beneath a large grove of *Pisonia grandis*.

Sand Island is a bank of coralgal sand with an 0.5 km shoreline and reaching about 5.2 m above sea level. It covers 2.59 ha and presently lies on the lagoon side of the reef, due east of the lagoon entrance channel, with a broad reef flat extending seawards. It is intermittently vegetated and following Hurricane Ofa in February 1990, it was swept clear save for one *Messerschmidia* tree. It now hosts seedling growth of *Boerhavia* and *Messerschmidia*.

The lagoon floor has an undulating sandy bottom much of which is covered with algae and small scattered colonies of *Acropora*. Flat-topped, steep-sided pinnacles jut up from the floor and are encrusted by coralline algae, with both hard and soft corals on the vertical and undercut sides.

Descriptions of the reef and the reef flat are given by Mayor (1921b) and Wass (n.d. a,b) which are summarised in United Nations Environment Programme (1988). The upper surface of the reef is a hard, smooth-floored flat, awash at low tide, and covered with vigorous growths of *Porolithon* that form connected pink patches and ridges up to 15 cm high and 15 cm to a metre or more wide. The inner lagoon edge is covered by coral blocks, the larger of which have flattened tops, also encrusted by coralline algae, and with both algae and soft corals coating their sides. Most of these blocks lie loose on the flat but some are attached by slender pedicels. Mayor (1921b) noted one loose boulder which he estimated weighed 46 tons. He argued (1921b, 1921c, 1924b) that the appearance of these boulders lent support to the rim of the atoll having once been 6 to 8 feet (1.8-2.4 m) higher than at present (*cf.* Stoddart, 1969). The remainder of the reef flat is rubble-strewn and also heavily encrusted by coralline algae and scattered colonies of *Acropora*. The basalt boulders, noted earlier, are part of the rubble of the flat. Their apparent comings and goings give further indication of the dynamic nature of the atoll environment.

The reef front extends from a depth of 4 m in a series of irregular steep steps to about 50 m depth. The upper portion is dissected by ridges and surge channels. The irregular, high magnesium calcite substrate is encrusted thickly with coralline algae. Corals, including *Acropora* and *Pocillopora*, are abundant and diverse but table and staghorn varieties are lacking. No reports of the outer reef have been published at the time of writing.

Several authors (e.g., Setchell, 1924; Sachet, 1954) have drawn attention to the number of native vascular plant species found on Rose being restricted to three: *Pisonia grandis*, *Boerhavia tetrandra*, and *Portulaca lutea* which form a small evergreen orthophyll softwood forest. At the time of their intensive survey of the atoll, Amerson *et al.* (1982a,b) found the number of species had increased to include *Messerschmidia argentea*, *Ipomoea macrantha*, and *Suriana maritima*, the latter having arrived only very recently. Several attempts have been made to introduce coconut palms *Cocos nucifera*. The number surviving varies (20 in 1938, 12 in 1953), as do reports of their health (*cf.* Sachet, 1954:5,16).

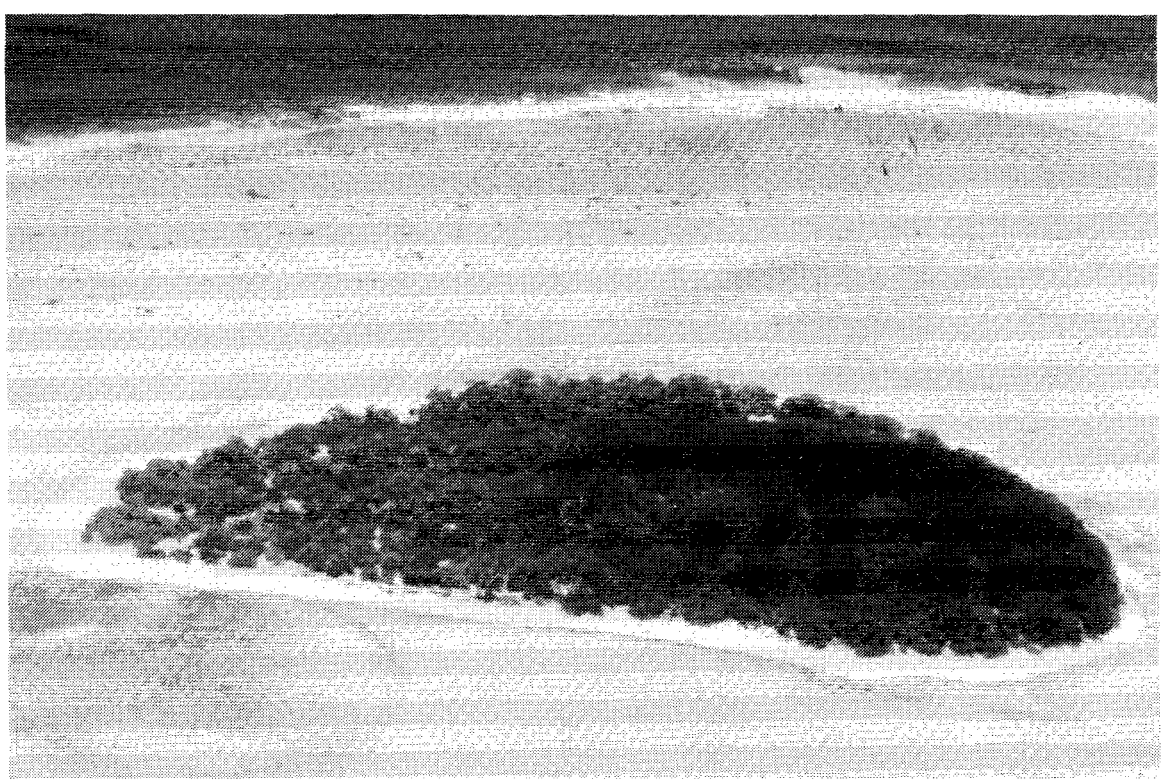

Fig.2. Aerial photograph of Rose Island about 1988. Department of Marine and Wildlife Resources, Pago Pago.

To Pacific ornithologists Rose means seabirds. All observers have commented on the very large seabird population which dominates the life of the atoll. About 97% of the total seabird population of American Samoa is resident on Rose, consisting of about 312,000 birds of 20 species. There are large nesting colonies of both the Greater and Lesser Frigatebirds *(Fregata minor* and *F. ariel)*, of the Red-footed, Brown and Masked Boobies *(Sula sula, S. leucogaster* and *S. dactylatra)*, of Red-tailed Tropicbirds *(Phaethon rubricauda)*, of White and Sooty Terns *(Gygis alba* and *Sterna fuscata)*, of Brown and Black Noddies *(Anous stolidus, A. tenuirostiris)*, and of Reef Herons *(Egretta sacra)*. In addition about a dozen migrants and visitors have been recorded from the atoll including the White-tailed Tropicbird *(P. lepturus)*, Pacific Golden Plover *(Pluvialis fulva)*, Ruddy Turnstone *(Arenaria interpres)*, Bristle-thighed Curlew *(Numenius tahitiensis)*, Bar-tailed Godwit *(Limosa lapponica)*, Wandering Tattler *(Heteroscelus incanus)*, Sanderling *(Calidris alba)*, Long-tailed Cuckoo *(Urodynamis taitensis)*. A small white egret has been reported by Scott *et al.* (1983).

Hawksbills, *Eretmochelys imbricata,* and Green Turtles, *Chelonia mydas,* nest on the atoll. Other herpetofauna records include *Gehyra oceanica,* the Polynesian Gecko and *Lepidodactylus lugubris,* the Mourning Gecko.

Over 200 species of fish have been recorded and surveys have indicated little change in the reef fish community in the past ten years. Although the fauna is similar to that found elsewhere in Samoa, Wass (n.d. a) drew attention to a lack of damselfish and a relatively low population of herbivorous fish. The abundance of carnivorous fish was regarded as reflecting a lack of fishing pressure. The giant clam *Tridacna maxima,* is present throughout shallow areas of the lagoon and whereas 10% of the population was found to be dead in 1980 (Wass, n.d. c), the population is unique in the Pacific in being otherwise little disturbed.

The introduced Polynesian rat, *Rattus exulans,* has reached pest proportions. Reports of bird egg eating by rats and, perhaps, also of the eating of young and hatchling turtles, need be matched against recent observations of similar depredation by migrant waders (e.g., Amerson *et al.,* 1982a,b.)

Of importance to researchers is the question of whether or not Rose has ever been inhabited. The people of the Manu'a Group often visited in the past because of Rose's closeness to Ta'u Island and the attraction of the enormous seabird colonies which provided them with a valuable source of food (Amerson, 1982a). Swerdloff (1973) regarded Rose as never having had any permanent settlement and his opinion is cited in United Nations Environment Programme (1988). However, in Setchell's (1924) comprehensive review of the early literature, reference is made to Graeffe's (1873) account of a short-lived attempt by a German firm to establish a fishing station on Rose in the 1860s. A house was built and coconut trees planted (Fig.3a-d). After the Germans abandoned the station as unprofitable, a Samoan family continued to live there for a short time (*cf.* Rantzau, 1873; Sachet, 1954; Gray, 1960).

Rose was chosen as a dive-bombing practice range during World War II. It is unclear whether this was implemented.

Historical and Geographical Notes

The first European to see the atoll was Jacob Roggeveen on 13 July 1722. He named it Vuyle Eyland. Subsequent visits included Louis de Freycinet (21 Oct. 1819) who christened the isle "Rose", after his wife who was unlawfully travelling with him, and Otto von Kotzebue 2 April 1824, who added the name Kordinkoff (or Kordiukoff or Kordikoff) after his lieutenant (Fig.4a,b).

Roggeveen's (1838) name of "Vuyle Eyland" (or "Vuil Eiland", or "Vuile Eyland" or "Vuyle Eylandt") was rendered as "Foul Island" by Sharp in an editorial footnote to a 1970 translation of Roggeveen's journal; the explanation being that the island was beset by foul ground. Ten years earlier Sharp (1960) had given the name as "Bird Island". This unlikely version was repeated by Krause (1972) in the brief introduction to his bibliography. At the turn of this century, the German anthropologist, Krämer (1902-1903), had interpreted Roggeveen's name as describing a "good for nothing island".

Whatever may have been the truth of Roggeveen's intentions, the priority he enjoyed lost out to the cause of love. The romantic connotations provided by the Freycinets' visit, and naming of their sole "discovery", have caused the name Rose to stick. The same name appears on Pacific charts for a small island, adjacent to Lulu Island, in the mouth of the Fraser River, British Columbia. Some geographic confusion occurs in the literature concerning "Rose Island" as a direct consequence of this duality. For example, Findlay (1851), in the Samoan section of his navigational guide, juxtaposes Belcher's (1843) report, from his Canadian voyage, of a 30 foot high mound of slaty, micaceous, shale and quartz dykes, with Wilkes' (1844) account of a low, small, annular, coral island, largely inundated at high water. This same geographic confusion is continued in the bibliography of Krause (1972) who includes Belcher's book in his Rose Island (Samoa) bibliography. A similar misunderstanding would also appear to be involved in *A gazeteer* [*sic*] ...(1976) and Langdon's (1979) listings of alternative names for Pacific islands. Both publications offer Middleton as a synonym for Rose (Samoa) yet this would appear to apply only to the Canadian Rose. Perhaps too, the ambiguity applies, but is not easily resolved, in interpretation of shipping reports such as Ward (1967) e.g., see *Memoranda* (1846).

The later history of Rose, including its political status and twentieth century scientific studies, is summarised by Sachet (1954) and United Nations Environment Programme (1988). Importantly, the significant scientific distinction between Rose Island and Rose Atoll is often neither appreciated nor made clear by early writers.

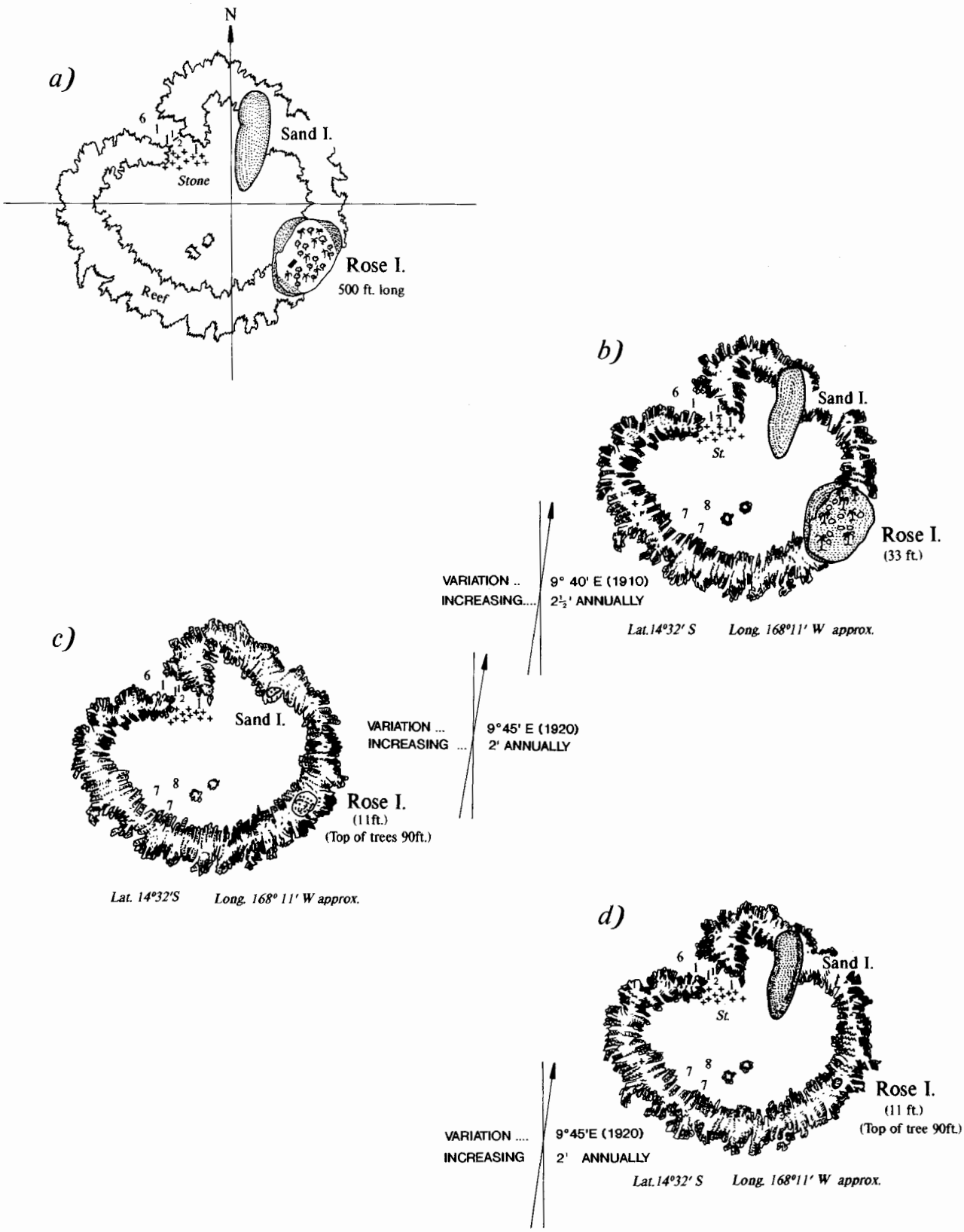

Fig.3. Charts of Rose Atoll after Setchell (1924): (a) from Rantzau (1873a,b); (b) from US Hydrographic Office issued 26 September 1919; (c) after Mayor June, 1920, showing location of coconut trees (black dots) on Sand and Rose Islands; (d) from US Hydrographic Office 90, issued 4 October 1921.

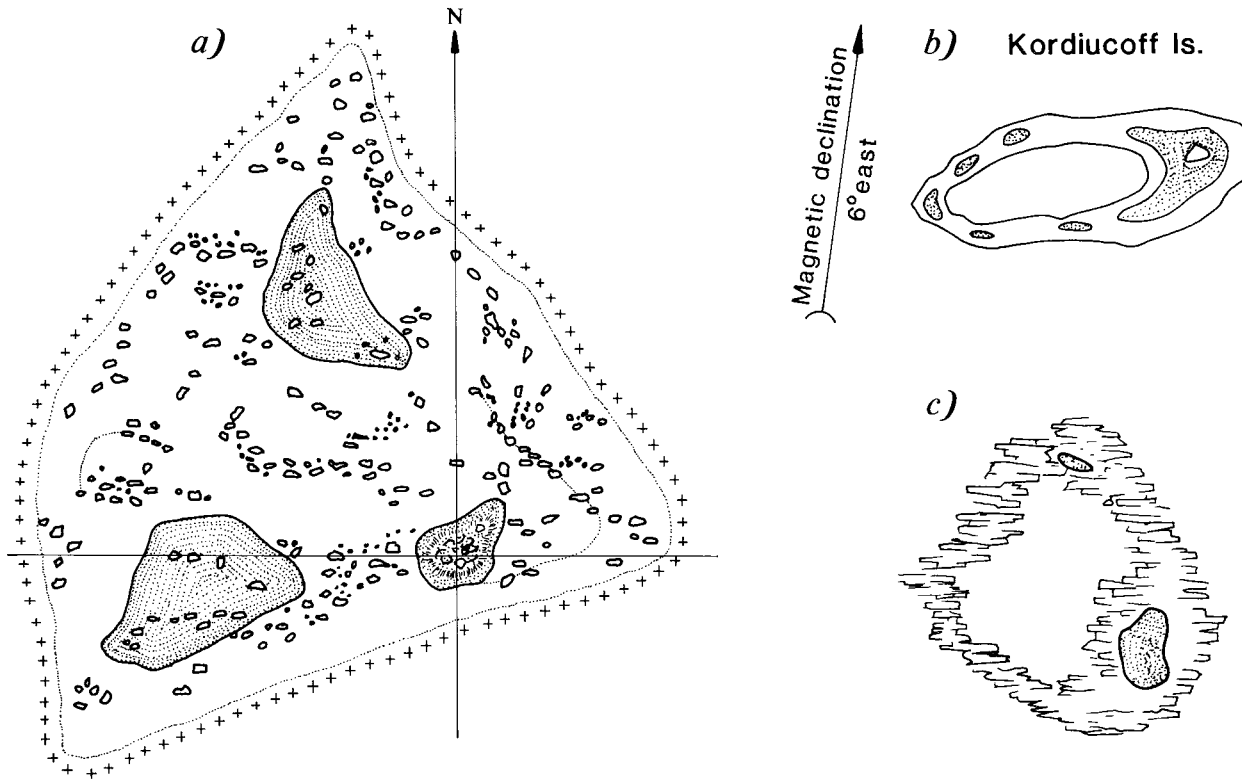

Fig.4. Charts of Rose Atoll after Setchell (1924): (a) from Freycinet (1828); (b) from Kotzebue (1830); (c) from Wilkes (1850, pl.22).

Fortunately, this difference is maintained in most recent scientific descriptions such as the text and maps of Amerson *et al.* (1982a,b) and United Nations Environment Programme (1988).

Bibliographic Observations

The first scientists to land on the atoll were those of the US Exploring Expedition of 1838-1842, whose ships, the *Porpoise* and the *Vincennes* were to rendezvous off Rose Atoll. On 7 October 1839 the *Vincennes* arrived and part of the day was spent in observations (Fig.4c). The publications arising from this expedition are detailed in Haskell (1968). These consist of both official and unofficial issues. Generally, the more readily available unofficial issues are those cited here by way of example. No effort has been made to enumerate and annotate all of the many editions and versions of Wilkes' narrative to the expedition. Haskell also details numerous publications and unpublished manuscripts produced in the aftermath of the expedition. While efforts were made to examine those which may have content relevant to Rose, many proved inaccessible to the present compilers.

The authors are aware they have managed to cite only a few of the numerous monographs concerned with the history of European explorations within the Pacific which may contain comment on visits to Rose by Freycinet or the US Exploring Expedition. Again, books of this genre given here, are by way of example.

No systematic attempt was made to document maps and charts which show Rose Atoll. The few listed here were those to whom reference was encountered in the course of other bibliographic research. Most of these were not sighted by the compilers.

In the course of this compilation brief references to and/or descriptions of Rose were encountered in various general geographies and handbooks of the Pacific, many emanating from official US Government sources. It would be quite unproductive to attempt to list all such citations and those given here are by way of example only. It may be noted, however, that often the brief information given in these sources contains inaccuracies, some being quite remarkable, e.g., Great Britain, Admiralty (1943), Henderson *et al.* (1971).

Earlier bibliographic compilations include Setchell (1924), Sachet & Fosberg (1955, 1971), Krause (1972), United Nations Environmental Program (1988). Sachet (1954) provided a comprehensive overview of the status of scientific knowledge on the atoll but gave only limited bibliographic data. Several items listed in the earlier bibliographies were not accessible to the present compilers, including the official American Samoan Government publication *O Le Fa'atonu*. These items are listed here although their contents have not been checked. They are tagged in the annotation as "Not sighted."

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4. Amerson, A.B. Jr, W.A. Whistler & T.D. Schwaner, 1982a. *Wildlife and wildlife habitat of American Samoa. 1. Environment and ecology.* (R.C. Banks, ed.). US Department of the Interior, Fish and Wildlife Service, Washington, DC. i + 119 pp. [Includes extensive documentation on Rose: secondary aim of survey to determine effects of Polynesian rat predation on Rose p.3; aerial photo of Rose showing die-off of *Pisonia* p.4;.human contact history pp.5,19; establishment of refuge p.6; study methods and visits pp.6-8; brief geographic data p.8; geology including description and speculation on volcanic base p.12; soils ex Lipman & Shelley (1924), Lipman & Taylor (1924) with attempted reconstruction of profile pp.12,14 (*cf.* Sachet, 1954); map of atoll pp.16,19; rainfall p.21; Rose included in general strand vegetation community for American Samoa although many species listed here not on Rose p.22; *Scaevola* spp. absent on Rose p.23; coastal marsh community absent on Rose p.24; *Pisonia* stand detailed as part of littoral forest including recent dieback p.29; vegetation includes *Boerhavia tetrandra, Portulaca lutea, Pisonia grandis, Messerschmidia argentea, Ipomoea macrantha, Suriana maritima, Cocos nucifera* pp.42-43; map showing distribution of vegetation communities p.43; two geckoes pp.45,47-48, *cf.* p.44, fig.28; Black and Hawksbill turtles pp.45,47-48; general comments on birds pp.49-52 (includes collecting by Whitney South Seas Expedition December 1923 and Sooty terns); 21 species of birds known from Rose including 12 seabirds and 1 marsh bird as native resident breeders (Gray-backed Tern and Brown Noddy nesting, Black-naped Tern potential breeding species, Reef Heron nesting and feeding) p.53, *cf.* table 18, p.91; map of nesting distribution of herons, Sooty and White Terns, Brown and Black Noddies, Red-tailed Tropicbirds, fig.32, p.54; map of nesting distribution of Blue-faced, Brown and Red-footed Booby, and Great and Lesser Frigatebirds p.55, fig.33; seabird population, abundance and breeding p.53; Polynesian rats (habitat, population, effect on other species) pp.56-57; no bats p.56; tern egg breaking by Golden Plover, Ruddy Turnstone, Bristle-thighed Curlew, Sanderlings p.57; threatened and endangered species: Hawksbill Turtle *(Eretmochelys imbricata),* Black Turtle *(Chelonia agassizii),* with comments on Australian Grey Duck *(Anas superciliosa),* Red-tailed Tropicbird, Blue-faced Booby, Great Frigatebird, Lesser Frigatebird, Reef Heron, Gray-backed Tern pp.64-65; wildlife protection, hunting, game wardens p.72; proposed future research p.74 and see acknowledgments. Extensive reference list used in present compilation pp.75-77. Wildlife and habitat sampling plots, table 1, p.78. Local weather data obtained during study, table 4, p.80. Numbers of indigenous plant species, table 6, p.80. Summary of distribution of vascular plant species, table 7, p.81. Summary of vegetation types, table 8, p.82. Vegetation communities, table 9, p.83. Herpetofauna records *(Eretmochelys imbricata, Chelonia agassizii, Lepidodactylus lugubris, Gehyra oceanica),* table 11, p.84. Distribution of amphibians and reptiles (species list as for table 11), table 12, p.85. Densities of lizard populations, table 15, pp.87-88. Summary of distribution of birds including specimens taken in this study (Red-tailed Tropicbird, White-tailed Tropicbird, Blue-faced Booby, Brown Booby, Red-footed Booby, Great Frigatebird, Lesser Frigatebird, Reef Heron, Golden Plover, Ruddy Turnstone, Bristle-thighed Curlew, Wandering Tattler, Sanderling, Black-naped Tern, Gray-backed Tern, Sooty Tern, Brown Noddy, Black Noddy, White Tern, Long-tailed Cuckoo), table 17, p.90. Status of birds (species list as for table 17), table 18, p.91. Seabird population estimates and counts by species

(species list as for breeding species in table 18), table 23, p.96. Mammal species, distribution and summary of new records (Polynesian rat), table 27, p.100. Summary of characteristics of ecosystems (Sooty Terns, Brown Noddy, Brown, Blue-faced and Red-footed Boobies), table 30, pp.102-107, especially p.103. Native and naturalised plants with vernacular names *(Messerschmidia argentea, Pisonia grandis, Suriana maritima, Cocos nucifera, Ipomoea macrantha, Boerhavia tetrandra, Portulaca lutea)* Appendix 1, pp.110-119. Note: original unpublished report incorporating vol 1 & 2 was in excess of 1200 pp., 200 figs, 110 tables.]

5. Amerson, A.B., Jr, W.A. Whistler & T.D. Schwaner, 1982b. *Wildlife and wildlife habitat of American Samoa. 2. Accounts of flora and fauna.* (R.C. Banks, ed.). US Department of the Interior, Fish and Wildlife Service, Washington, DC. ii + 151 pp. [Includes extensive documentation on Rose: brief geographic data p.2; soils including new data pp.5-7; atoll map p.8; littoral forest with study plots pp.5,9,16; *Pisonia grandis* pp.9,24; *Cocos nucifera* p.9; *Messerschmidia argentea* p.9; *Suriana maritima* and its very recent arrival p.26; *Chelonia agassizii* (Black Turtle), including its distinction from *C. mydas* and possible predation by *Rattus exulans* pp.38-40; *Eretmochelys imbricata* (Hawksbill Turtle) p.40; *Gehyra oceanica* (Polynesian Gecko) p.40; *Lepidodactylus lugubris* (Mourning Gecko) pp.42,44; estimates of bird numbers p.54; *Phaethon rubricauda* (Red-tailed Tropicbird) pp.58-59; *P. lepturus* (White-tailed Tropicbird), *Sula dactylatra* (Blue-faced Booby) p.59; *S. leucogaster* (Brown Booby) pp.59,61; map of nesting distribution of Sooty and White Terns, Brown and Black Noddies, Red-tailed Tropicbirds, Reef Herons p.60; *Sula sula* (Red-footed Booby), *Fregata minor* (Great frigatebird) p.61; map of nesting distribution of Blue-faced, Brown, and Red-footed Boobies, Great and Lesser Frigatebirds p.62; *Fregata ariel* (Lesser Frigatebird), *Egretta sacra* (Reef Heron) p.63; *Pluvialis dominica* (Golden Plover) pp.64-65; *Arenaria interpres* (Ruddy Turnstone), *Numenius tahitiensis* (Bristle-thighed Curlew), *Limosa lapponica, Heteroscelus incanus* (Wandering Tattler) p.65; *Calidris alba* (Sanderling) p.66; *Sterna fuscata* (Sooty Tern) pp.66-67; tern egg breaking by Golden Plovers, Turnstones, Bristle-thighed Curlews, Sanderlings, and Polynesian rats p.66; *Anous stolidus* (Brown Noddy) pp.67-68; *Gygis alba* (White Tern) p.68; *Urodynamis taitensis* (Long-tailed Cuckoo) p.70; *Rattus exulans* (Polynesian Rat) p.75; whales and porpoises p.75. Extensive reference list used in present compilation pp.77-79. Soil plot data including types and analyses, table 1, p.80. Forty one study plots including Rose littoral forest, table 2, p.81. Vegetative characteristics, Rose littoral forest, table 6, p.83. Densities and populations of lizards, table 45, pp.125-126. Distribution of amphibians and reptiles, table 46, p.127. Observations of black turtle on Rose, table 28, p.128. Densities of Polynesian gecko, table 49, p.128. Densities of mourning gecko, table 50, p.128. Descriptions and dates of bird surveys in study plots, table 55, p.130. Mean densities of waterfowl, marsh and land birds in vegetation study plots, table 56, p.131. Population estimates and counts of seabirds, table 59, p.143. Numbers of seabirds observed between islands, table 60, p.144. Summary of distribution of birds, table 61, p.145. Recent observations of red-tailed tropicbird at Rose, table 62, p.146. Observations of blue-faced booby at Rose, table 63, p.146. Observations of brown booby at Rose, table 64, p.146. Observations of red-footed booby at Rose, table 65, p.147. Observations of great frigatebird at Rose, table 66, p.147. Observations of lesser frigatebird at Rose, table 67, p.147. Observations of reef heron at Rose, table 68, p.148. Recent observations of sooty tern at Rose, table 69, p.148. Recent observations of brown noddy at Rose, table 70, p.148. Recent observations of black noddy at Rose, table 71, p.148. Recent observations of white tern at Rose, table 72, p.149. Descriptions and dates of mammal surveys in study plots, table 73, p.149. Summary of distribution of mammals, table 75, p.151. Observations on Polynesian rat at Rose, table 77, p.151.]

6. *Anonymous Journal kept aboard the Vincennes, 9 August 1838 - 22 October 1840,* 1944. In *Records of the United States Exploring Expedition under the command of Lieutenant Charles Wilkes, 1838-1842.* File Microcopies of Records No. 75. Roll 10. United States of America, National Archives, Washington. 1944. [Entry for 8 October 1839 records "made and surveyed Rosa Island, a small and uninhabited island" p.47, *cf.* Briskoe (1944)]

7. Arago, J., 1823. *Narrative of voyage round the world in the Uranie and Physicienne corvettes commanded by Captain Freycinet during the years 1817, 1818, 1819, and 1820; on a scientific expedition undertaken by order of the French Government in a series of letters to a friend, by J. Arago, Draftsman to the Expedition.* Treuttel & Wurtz, Treuttel, Jun., & Richter, London. xxx + 285, 299 pp. (Reprinted as *Bibliotheca Australiana* **45**, 1971. N. Israel, Amsterdam / Da Capo Press, New York.) [Appended report to Academy of Sciences notes discovery of Rose p.xviii. Letter CXXXIV, Part II pp.157-158) reads:

> At last we have made a geographical discovery: a small spot of land appears in the horizon not laid down in the charts. If it should prove a continent! If it should be an island like Sumatra, or Borneo! Should it only be one such as Timor, or Manilla!.....We draw near; it displays itself in all its majesty. Congratulate us, my dear Batlle; it may be a short quarter of a league in diameter: I flatter it; - it is near a quarter of a league in circumference. Lengthened reefs surround it and render its vicinity very dangerous. A few trees crown its summit, on which thousands of birds take refuge.
>
> Let us see; what shall we call it? Let it be a flowery name. Shall it be Green Island, Red Island, or ..... No, I suppose it will be *Rose* Island.

> Perhaps it might be beneficial immediately to point out its latitude or longitude, since it might prove fatal to some voyager; but I am forbidden to disclose the secret, and I am dumb.

See Freycinet (1826a,b, 1839, 1844), Arago, (1868), Freycinet (1927), Bassett (1967).]

8. Arago, J., 1868. *Souveniers d'un Aveugle. Voyage autour du monde.* Lebrun, Paris. xii + 412 pp. ["Nouvelle èdition, revue et augementèe. Enrichie de notes scientifiques." Dramatic report of locating and naming of Rose during voyage with Freycinet, with some description p.285.]

9. Armstrong, J.S., 1932. *Hand-list to the birds of Samoa.* John Bale, Sons & Danielsson Ltd, London. vi + 91 pp. [Mentions Bar-tailed Godwit, *Limosa lapponica,* recorded on Rose by Peale p.38.]

10. A Schooner Lost., 1869. *Boston Herald Supplement* 5 June 1869: 4. [Brief account of wreck of schooner *Good Templar* out of San Francisco, on Rose, 4 November 1868. Reprinted in Ward (1967, **6**: 317).]

11. Ashmole, M.J., 1963. *Guide to the birds of Samoa.* Pacific Science Information Center, Bernice P. Bishop Museum, Honolulu, Hawaii. i + 21 pp. [Cyclostyled.] [Records from Rose include: Sooty Tern, *Sterna fuscata* (breeding) p.8, Turnstone, *Arenaria interpres* p.9, Bristle-thighed Curlew, *Numenius t ahitiensis,* Bar-tailed Godwit *Limosa lapponica,* American Wandering Tattler, *Heteroscelus incanus,* Reef Heron, *Demigretta sacra* p.10.]

12. *Asia and Oceania: a guide to archival & manuscript sources in the United States* (G.R. Nunn, ed.). **1**: Alabama-District of Columbia. 1985. Mansell, London, New York. [Coded subject files of the Governor's Office correspondence, reports, memos concerned with public works, agriculture, annual reports, legal matters, etc held in National Archives and Records Center, San Bruno, California, include Rose Island: #2B (1941-1951), #2B(1951-1954), pp.78-79.]

13. Back, William D., 1984. *Memorandum from Office of the Solicitor to Regional Director, US Fish and Wildlife Service RE: Rose Atoll NWR - Regulation of Fishing and Boating.* [Unpublished memorandum responding to authority to regulate fishing and boating within three miles of Rose Atoll. The exterior boundary is defined as the extreme low water line outside the perimeter reef. Rose Island, however, was excepted from the Territorial Submerged Lands Act, 48 USC. 1705 *et seq.* enacted by Congress on 5 October 1974 by Proclamation No. 4347, 40 Fed. Reg. 5129 (1 February 1975). "I conclude, therefore, that the US Fish and Wildlife Service does have jurisdiction over the submerged lands around Rose Atoll under joint Interior-Commerce authority."]

14. Badger, G., 1988. *The explorers of the Pacific.* Kangaroo Press, Kenthurst, NSW, 248 pp. [Records Freycinet's locating and naming Rose after his wife, and that island was "discovered and named Vuyle Eyland (Foul or Dirty Island) in 1722 by Roggeveen" p.193; reference to Sharp's translation of name as Bird Island p.235.]

15. Balazs, G.H., 1990. *Historical summary of sea turtle observations at Rose Atoll, American Samoa.* National Marine Fisheries Service Honolulu Laboratory, Hawaii. Mimeographed, 6 pp. [Thirty eight records documented from 7 October 1839 (Girard, q.v.) to 24-26 October 1989 with observations. Only generic names given are those quoted from Graeffe (1873), Sachet (1954), etc.]

16. Balgooy, van M.M.J., 1966. Distribution maps of Pacific plants. **In** C.G.J.J. van Steenis & M.M.J. van Balgooy (ed.). *Pacific Plant Areas* **2**: 53-310. [Rose shown as location of *Pisonia grandis* but not specifically referred to in text, map 66, pp.120-121.]

17. Banks, R.C., 1984. Bird specimens from American Samoa. *Pacific Science* **38**(2): 150-169. [Supplements Amerson *et al.,* (1982a,b). Reviews previous work including visits to Rose of US Exploring Expedition (Peale, 1848; Cassin, 1858), Whitney South Sea Expedition, Schultz, ECI (Amerson *et al.,* 1982a,b), pp.150-153. *Phaethon rubricauda,* Red-tailed Tropicbird p.154; *Sula dactylatra personata,* Masked Booby p.154; *S. leucogaster plotus,* Brown Booby pp.154-155; *S. sula rubripes,* Red-footed Booby p.155; *Fregata minor palmerstoni,* Great Frigatebird p.155; *F. ariel ariel,* Lesser Frigatebird p.155; *Egretta sacra sacra,* Reef Heron p.155; *Heteroscelus incanus,* Wandering Tattler p.158; *Numenius tahitiensis,* Bristle-thighed Curlew p.158; *Limosa lapponica,* Bar-tailed Godwit pp.158-159; *Arenaria interpres,* Ruddy Turnstone p.159; *Sterna sumatrana sumatrana,* Black-naped Tern p.159; *S. fuscata serrata,* Sooty tern p.159; *Anous stolidus pileatus,* Brown Noddy pp.159-160; *A. tenuirostiris minutus,* Black Noddy p.160; *Gygis alba candida,* White Tern p.160. But *cf.* Stickney (1943).]

18. Bardsley, E., 1975. Preliminary bibliography of the geology and geophysics of Samoa. **In** L W. Kroenke & E. Bardsley (eds). Bibliography of geology and geophysics of the south-western Pacific. *United Nations Economic and Social Commission for Asia and the Pacific, Committee for Co-ordination of Joint Prospecting for Mineral Resources in the South Pacific Offshore Areas (CCOP/SOPAC) Technical Bulletin* **1**: 74-81. [Used in present compilation. Updated in Thompson (1983).]

19. Bartlett, H.H., 1940. The reports of the Wilke's expedition, and the work of the specialists in science. *Proceedings, American Philosophical Society* **82**: 601-705. [Quotes the original description of *Limosa foxii*

from Rose ex Peale (1848), and notes it as being referred to *L. novae zelandiae* G.R. Gray in Cassin (1858) pp.702-703.]

20. Bassett, M., 1962. *Realms of islands. The world voyage of Rose de Freycinet in the corvette Uranie 1817-1820, from her journal and letters and the reports of Louis de Saulces de Freycinet, Captaine de corvette.* Oxford University Press, London. xiv + 275 pp. [Includes discovery and naming of Rose, pp.174-175. pl.39, facing p.164, shows chart and landfall of Rose from Duperry's *Atlas historique*.]

21. Belcher, E., 1843. *Narrative of a voyage round the world, performed in Her Majesty's Ship Sulphur, during the years 1836-1842 including details of the naval operations in China, from Dec. 1840, to Nov.1841.* H. Colburn, London. **1**: xxii + 387 pp. [Cited by Krause (1972), the Rose Island reference, **1**: 68-69, is to that in British Columbia at the mouth of the Frazer River.]

22. Beltrán y Rózpide, R., 1884. *La Polinesia: Descubrimiento, reseña y descripción geográphicas, clima, constitutión, geológica, produccion y población de las islas situadas en la región oriental del mar pacifico; raza, idioma, historia, religión, gobierno, costumbres, cultura intelectual, industria y comercio des sus habitantes; notica de los principales viages efectuados en aquella parte de la oceanía por navegantes españoles y extranjeros; y consideraciones aceria de la importancia y porvenir comercial y político de dichas islas; con interesantes documentos in éditos relativos á su descumbrimiento y on mapa general de la polinesia y varios particulares de los archipiélagds que la forman.* Fortanet, Madrid. viii + 297 pp. [Discovery of Rose by Freycinet in 1819 p.113; brief description of "Rose ó Kordiniof" p.117; map between pp.72-73 includes Rose.]

23. Benoit-Guyod, G., 1942. *Au temps de la marine en bois. Le tour du monde de "L'Uranie" (1817-1820), Le Voyage triomphal de la "Belle-Poule" (1840).* Mercvre de France, Paris. 196pp. [Describes discovery of Rose by the Freycinets pp.86-87.]

24. Blake, S.F. & A.C. Atwood, 1942. Geographical guide to the floras of the world; an annotated list with special reference to useful plants and common plant names. Part I: Africa, Australia, North America, South America and islands of the Atlantic, Pacific and Indian Oceans. *US Department of Agriculture Miscellaneous Publications* **401**: 1-336. [Annotated. Indexed. Rose (Samoa) pp.127-128. Used in present compilation.]

25. Boddam-Whetham, J.W., 1876. *Pearls of the Pacific.* Hurst & Blackett, London. xvi + 362 pp., 8 fig. [Travel account includes sighting of Rose: "a small cone-shaped island, thickly covered with trees, but uninhabited except by great quantities of sea-birds" and apocryphal report of sale of island for $5 and subsequent re-sale for $50 p.139.]

26. *Boston Post,* 4 February 1847. [*cf. The Sandwich Island News* (1846).]

27. Brigham, W.T., 1900. An index to the islands of the Pacific Ocean. *Bernice P. Bishop Museum Memoir* 1(2): 87-256. [Rose noted p.139 as discovered by Freycinet and named for his wife; only inhabitants birds; position: 14°31'30"S 168°08'30"W; belongs to US by treaty of 1899. Location: pl.15.]

28. Briskoe, W., 1944. *Journal of William Briskoe, Armorer aboard the Relief and the Vincennes (18 August 1838 - 23 March 1842).* **In** *Records of the United States Exploring Expedition under the command of Lieutenant Charles Wilkes, 1838-1842.* File Microcopies of Records No. 75. Roll 13. United States of America, National Archives, Washington. 1944. [Identical entry as for Anonymous Journal (1944) except for date, given as 9 October.]

29. Brosse, J., c.1983a. *Les tours du monde des explorateurs: les grands voyages maritimes, 1764-1843.* Bordas, Paris. [2],230p. [Original version of Brosse (1983)..."Freycinet découvrit dans l'archipel des Navigateurs (Samoa) use île nouvelle qu'il nomma l'île Rose en l'honneur de sa femme. En mer, les naturalistes observèrment plusieurs espèces de dauphins à peu près inconnues" p.143. Map shows Freycinet's route and Île des Navigateurs p.141.]

30. Brosse, J., about 1983b. *Great voyages of exploration: the golden age of discovery in the Pacific.* (Translated by S. Hochman). Bateman, Budderim (Qld.), 232 pp. [Historical notes on Rose. Freycinet's visit p.143, *Porpoise* and *Vincennes* rendezvous p.197.]

31. Bruce, M.D., 1985. Review. *Wildlife and wildlife habitats of American Samoa. I. Environment and Ecology, II Accounts of Flora and Fauna.* A.B. Amerson, W.A. Whistler & T.D. Schwaner, 1982. *Emu* **85**: 136-138. [Rose mentioned in passing.]

32. Bryan, E.H. Jr., 1939. Rose Atoll, USA. *Paradise Pacific* **51**(4): 9, 25-26, 2 figs, 1 map. [Brief description with notes on natural history based on visit for one hour in 1938 aboard US Coast Guard cutter *Taney*, and gleaned from Setchell (1924). *Pisonia grandis, Boerhaavia, Portulaca*, coconut palms, Wideawake Terns, boobies, frigates, White Terns, Reef Herons (one white, one blue), Wandering Tattlers p.9.]

33. Bryan, E.H. Jr., 1941. *American Polynesia; coral islands of the central Pacific.* Tongg Publishing, Honolulu. 104 pp, map. [Rose built of pink lithothamnium p.18; Freycinet's discovery p.30; location p.100; detailed description, location, lagoon, entrances, climate, etc with map modified after Chart H.O.2924 pp.104-105; *Pisonia grandis, Boerhaavia, Portulaca,* coconuts p.105; wideawake terns, boobies, frigates, white terns, wandering tattlers, reef herons (blue and white), lizards, native rats,

hermit crabs, fish p.105; rock and soil including phosphorous pp.105-106; history of discovery and subsequent visits pp.106-107; similarity of vegetation to Vostok p.137. Inadequate index.]

34. Bryan, E.H. Jr., 1942. *American Polynesia and the Hawaiian chain.* Tongg Publishing, Honolulu. 253 pp., map. [Notes on Rose identical to those in Bryan (1941) pp.17, 27, 87, 88, 118, including detailed content pp.91-93.]

35. Bryan, E.H. Jr., 1951. Central and western Polynesia. **In** O.W. Freeman (ed.). *Geography of the Pacific.* John Wiley, New York. pp.394-422, map. [Rose included on locality map p.395, listed as part of American Samoa p.403, briefly described p.405, insert map p.406, elevation and area p.417.]

36. Bryan, E.H., 1953. Check list of atolls. *Atoll Research Bulletin* **19**: 1-38. [Just that, little more. Rose, synonym Kordinkoff, pp.9,36.]

37. Bryan, H.F., 1927. *American Samoa. A general report by the Governor.* United States Printing Office, Washington. vi + 137 pp., 6 pls. [A revision of pamphlet *American Samoa - a general report by the governor (1922).* "Rose Island is a coral atoll, uninhabited, and of practically no value " p.1; Freycinet and Wilkes' visits p.20; cession to USA and visit of Tilley 10 July 1900 p.48; not defined as part of Naval Station Tutuila p.54. Bibliography used in present compilation pp.136-137.]

38. Bryan, H.F., 1974. *Panala'au memoirs.* Pacific Scientific Information Center, Bernice P. Bishop Museum, Honolulu. vi + 249 pp. [Rose, visited in course of thirteenth cruise, briefly described p.178. Cruise report adapted from newspaper column "The Stars and Stripes in the Central Pacific", *Honolulu Star Bulletin,* 3 September 1938.]

39. Bunge, F.M., 1984. American Samoa. **In** F.M. Bunge (ed.). *Oceania: a regional study.* Pp.353-362. US Government Printing Office, Washington. xv + 571 pp. [Rose identified as atoll, part of American Samoa pp.353,354.]

40. Büntgen, J., 1907. *Die Verdienste der Franzosen um die Entdeckung & geographische Erforschung der australischen Küste und der Inseln des Stillen Ozeans 1783-1830.* Seb. Foppen, Bonn. 100 pp. [Brief comment on Freycinet's discovery of Rose p.59.]

41. Burgess, C.M., 1970. The living cowries. A.S. Barnes & Coy, New York, 389 pp. [Rose not specifically noted but shown within range of numerous species' distribution maps: *Cypraea isabella* p.41, *C. chinensis* p.79, *C. clandestina* p.93, *C. ziczac* p.95, *C. goodalli* p.103, *C. punctata* p.104, *C. teres* p.109, *C. asellus* p.118, *C. pallidula* p.121, *C. microdon* p.131, *C. minoridens* p.132, *C. irrorata* p.133, *C. frimbriata* p.139, *C. labrolineata* p.143, *C. poraria* p.152, *C. cernica* p.153, *C. helvola* p.155, *C. erosa* p.175, *C. caputserpentis* p.178, *C. cribraria* p.190, *C. schilderorium* p.191, *C. ventriculus* p.199, *C. talpa* p.200, *C. carneola* p.201, *C. vitellus* p.206, *C. arabica* p.215, *C. maculifera* p.216, *C. depressa* p.217, *C. eglantina* p.218, *C. scurra* p.225, *C. tigris* p.230, *C. lynx* p.241, *C. mauritiana* p.247, *C. mappa* p.249, *C. testudinaria* p.250, *C. argus* p.253, *C. staphylaea* p.259, *C. limacina* p.260, *C. nucleus* p.261, *C. chidreni* p.262, *C. cicercula* p.266, *C. bistrinotata* p.271, *C. globulus* p.272, *C. mariae* p.274, *C. hirundo* p.286, *C. ursellus* p.287, *C. stolida* p.290, *C. caurica* p.297, *C. errones* p.339, *C. annulus* p.342, *C. moneta* p.343, *C. felina* p.346.]

42. Buxton, P.A., 1930. Description of the environment. *Insects of Samoa and some other Samoan terrestrial Arthropoda.* British Museum (Natural History), London. Part IX(1): 1-32, 6 pls. [Rose included as uninhabited part of Samoa: "To the biologist, it has no connection with the other Samoan islands, for even among atolls it is unusually barren" p.10.]

43. Buxton, P.A., 1935. Summary. *Insects of Samoa and some other Samoan terrestrial Arthropoda.* British Museum (Natural History), London. Part IX(2): 33-104. [Rose dismissed as of "no material importance, for the atoll is utterly unlike the high, fertile, volcanic islands which compose the rest of Samoa, and only four sorts of flowering plants grow on it (Mayor, 1924). We may,therefore, assume that its land fauna is negligible: except in name it is no part of Samoa" p.36.]

44. Buxton, P.A. & G.H.E. Hopkins, 1928. *Researches in Polynesia and Melanesia: an account of investigations in Samoa, Tonga, the Ellice Group, and the New Hebrides in 1924, 1925.* Parts I-IV. (Relating principally to medical entomology.) Memoir Series, London School of Hygiene and Tropical Medicine **1**: xi + 260 pp., pls. [Rose included as part of Samoan group but identified as non-volcanic p.6.]

45. Cassin, J., 1858. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN.* Vol. VIII. *Mammalogy and ornithology.* C. Sherman, Philadelphia. viii + 466 pp. [Landfall and description of Rose quoted from Pickering (q.v.) including mention of reef, trees, lava boulders, and three species of *Sula,* three of *Sterna,* including particularly *S. fuliginosa,* and one *Tachypetes,* noise and eggs pp.387-388. *Limosa novae zealandia* (synonymised with *L. Foxii)* from Rose p.315.]

46. Chambers, F.T., 1905. American Samoa. *Bulletin, American Geographical Society* 37(11): 641-647, 3 fig., 1 map. [Very brief reference to Rose and its picturesque setting p.644.]

47. Chubb, L.J., 1957. The pattern of some Pacific

island chains. *Geological Magazine* 94: 221-228. ["The Samoan chain differs in that the pattern is reversed, the only atoll, Rose Island, lying at the *eastern* end..." p.223.]

48. Coggeshall, G., 1860. *An historical sketch of the commerce and navigation, from the birth of our Saviour down to the present date (1860); with remarks on their beneficial results to Christianity and civilization.* Published by and for the author by G.P.Putnam, New York. [ii] + 526 pp. [Notes arrival of US Exploring Expedition vessels meeting at Rose and Freycinet's location and naming of Rose p.150. Rose described as "a low, round, coral island, of small dimensions" with "great numbers of birds, which were very tame, not having been disturbed by the intrusion of man. The frigate-birds and boobies, (sula,) whose nests had been observed on low bushes, were found on the tops of trees fifty feet high. The noddies laid their eggs on the parts of the island destitute of vegetation. Fern [*sic*] also abounded..." p.151. Descriptions of eggs and nests.]

49. Conover, H.F. (compiler) 1943. *Islands of the Pacific: a selected list of references.* Mimeographed. Library of Congress, General Reference and Bibliography Division, Washington. ii + 155 pp. Revised 1945. [American Samoa pp.57-63. Used in present compilation.]

50. Coulter, J.W., 1941. Land utilisation in American Samoa. *Bernice P. Bishop Museum Bulletin* **170**: 1-48. [Includes brief compilation of information on Rose including pp.14, 15, 18: tiny insert map p.4; soils p.16 ex Lipman in Setchell (1924:236); general description including agricultural history pp.43-44 ex Setchell (1924:247-259).]

51. Coulter, J.W., 1957. *The Pacific dependencies of the United States.* Macmillan, New York. xv + 388 pp. [Rose stated to be part of American Samoa p.67. No more.]

52. Couthouy, J.P., 1842. Remarks upon coral formations in the Pacific; with suggestions as to the causes of their absence in the same parallels of latitude on the coast of South America. *Boston Journal, Natural History* **4**: 66-105, 137-162, 8 fig. (Reprinted from book of same title: Tuttle & Dennett, Boston, 68pp, 1842.) [Contains incidental information on geomorphology, birds, vegetation of several Pacific islands including Rose: pp.99 (lagoon entrance, tide range), 99,103 (reef channels), 137-139 (general, "somewhat fanciful" description includes presence of volcanic rocks in lagoon with comment on origins), *cf.* comments of Setchell (1924) and Sachet (1954, 1955). Couthouy accompanied the US Exploring Expedition. Publication of this paper resulted in charges of plagiarism being brought by J.D. Dana.]

53. Craig, R.D. & F.P. King, 1981. *Historical dictionary of Oceania.* Greenwood Press, Westport, Connecticut. xxx + 392 pp. [Rose mentioned only as part of American Samoa p.4. No other data given.]

54. Cumberland, K.B., 1968. *Southwest Pacific. A geography of Australia, New Zealand and their Pacific island neighbourhoods.* Whitcombe & Tombs, Auckland. 1st edn, 1954; 2nd edn, 1958; 3rd edn, 1960; 4th edn, xvii + 423 pp. [Rose included on locality map p.320; mentioned as part of American Samoa p.328.]

55. Dahl, Arthur L., 1980. Regional ecosystems survey of the South Pacific area. *South Pacific Commission Technical Paper* **179**. South Pacific Commission; International Union for Conservation of Nature and Natural Resources. [iv] + 99 pp. [Rose is atoll with *Pisonia* forest p.56; seabird rookery, sea turtle nesting area, algal reef, windward atoll reef, leeward atoll reef and open lagoon conserved p.57; Rose Atoll National Wildlife Refuge dates from 1973, includes "Atoll with two small islets (8 ha), one with a *Pisonia* grove and 6 other plant species, and 640 ha of reef and lagoon" p.58.]

56. [Dahl, A. L.] 1986. *Review of protected areas system in Oceania.* International Union for Conservation of Nature and Natural Resources, Gland and Cambridge. vii + 239 pp. [Rose included in area IX, American Samoa, having area of 0.1 sq. km., altitude of 3 m, 100% protected with zero human impact, and Conservation Importance of 14 p.39; breakdown of conservation data pp.44, 51, 60, 66, 67, 68, 72; summary including description and brief species list including *Pisonia grandis, Boerhavia, Portulaca, Eretmochelys imbricata, Chelonia mydas* p.166.]

57. Dalton, W. & D. Stanley, 1979. *South Pacific handbook.* Moon Publications, Rutland, Utah. [vi] + 352 pp. [Rose mentioned as uninhabited possession of the USA p.63. See *South Pacific Handbook* (1982) for 2nd edn]

58. Daly, R.A., 1924. The geology of American Samoa. *Carnegie Institution of Washington Publication* **340**: 93-143, 11 pls, 1 text fig., 1 map. (= *Papers in Marine Biology, Carnegie Institution of Washington* **19**: 93-143). [Small insert map of Rose, part of pl.A, giving maximum elevation of 11 ft and tops of trees as 90 ft.]

59. Dana, J.D., 1849. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN.* Vol. X. *Geology.* C. Sherman, Philadelphia. xii + 756 pp., 4 maps. [Rose Island noted as the easternmost island in the Samonan line of islands that trend N 68 W p.15; map of Samoan chain including Rose p.307; Rose Island in the same range as Ofu and Manua, but 75 miles eastward p.308; low coral atoll on which "Masses of basalt were observed in one or two places on its reefs, which had probably been carried there by floating logs, or as the ballast of some canoe" p.309]

60. Dana, J.D., 1851. On coral reefs and islands. *American Journal of Science & Arts* {2nd ser.,**11**(May)} **61**: 357-372, {2nd ser.,**12**(Nov)} **62**: 25-51. (Also published separately "with additions", as Dana, 1853, below.) ["From the Report on Geology of the Exploring Expedition under Capt. Wilkes, USN." Brief reference to "several large masses of compact and cellular basalt...lying two hundred yards inside of the line of breakers", and presence of only *Pisonia* and *Portulacca* on Rose **62**: 50.]

61. Dana, J.D., 1853. *On coral reefs and islands.* Putnam, New York. 143 pp., map. ["From the Author's Exploring Expedition Report on Geology, with Additions." Separately published version of Dana (1851). Reference to "several large masses of compact and cellular basalt ... lying two hundred yards inside of the line of breakers ... may have been brought there by roots of trees, or perhaps by some canoe", and to the presence of only *Pisonia* and *Portulacca* on Rose p.45. Position of Rose east of Tutuila suggests greatest subsidence in group was at its eastern extremity p.123, *cf.* Dana (1872).]

62. Dana, J.D., 1872. *Corals and coral islands.* Sampson, Low, Marston, Low & Searle, London. 398 pp., 3 maps. ["East of Tutuila is the *coral island,* Rose. It may be, therefore, that the greatest subsidence in the group was at its eastern extremity" p.327, *cf.* Davis (1928), Chubb (1957).]

63. Daniel, H., 1943. *Islands of the Pacific.* G.P. Putmam & Sons, New York. xi + 228 pp. [Rose mentioned as part of Samoa p.74, and described in one sentence as "uninhabited coral islet on which a few coconut palms grow" p.76.]

64. Darwin, C., 1842. *The structure and distribution of coral reefs.* Smith Elder, London. 214 pp. 2nd rev. edn, 1874, 278 pp; 3rd rev. edn with appendix by Bonney, 1889, 344 pp. ["A chart of *Rose* island at the extreme west [*sic*] end of the group, is given by Freycinet, from which I should have thought it had been an atoll; but according to Mr. Couthouy (Remarks, p.43) it consists of reef, only a league in circuit, surmounted by a few low islets; the lagoon is very shallow, and is strewed with numerous lava boulders of volcanic rock. This island, therefore, probably consists of a bank of rock, a few feet submerged, with the outer margins of its upper surface fringed with reefs; hence it cannot be properly classed with atolls, in which the foundations are always supposed to lie at a depth, greater than that at which the reef constructing polifers can live" p.160. 2nd edn p.209. 3rd edn has footnote appended to this comment, p.212, from Bonney stating it is an atoll, citing Capt Wharton and letter from Dana to Darwin 21 July 1874, *cf.* Setchell (1924).]

65. Davis, W.M., 1928. The coral reef problem. *American Geographical Society Special Publication* **9**: v + 596 pp. [Role of nullipores as reef builders at Rose pp.12, 516-517. Couthouy's (1844) observations of basalt on reef, cited by Darwin (1874), regarded as "apparently in error" p.38, but *cf.* Sachet (1954). Vegetation p.516. Sequence of active volcano in west to atoll (Rose) in east pp.516-517.]

66. Day, A.G., 1966. *Explorers of the Pacific.* Duell, Sloan, Pearce, New York. ix + 180 pp. [Freycinet's visit and naming of Rose p.160.]

67. Deignan, H.G., 1961. Type specimens of birds in the United States National Museum. *United States National Museum (Smithsonian Institution) Bulletin* **221**: x + 718 pp. [*Limosa foxii* from Rose, ex US Exploring Expedition p.85.]

68. Domeny de Rienzi, G.L., 1837. *Océanie du cinquième partie du monde. Revue géographique et ethnographique de la Malaisie, de la Micronésie, de la Polynésie et de la Mélanésie; offrant led résultats des voyages et des découvertes de l'auteur et de ses devanciers, ainsi que ses nouvelles classifications et divisions de ces contrées.* Firmin Didot Frères, Paris. **3**: 635 pp., pls, maps. [Freycinet's discovery and naming of Rose: "Elle a reçu le nom de son épouse, cette intrépide amazone de la science, qui l'accompagna dans son voyage autour du monde." Includes brief description, noting trees and birds **3**: 20.]

69. Donaggho, W.[R.], 1952-1953. Journal of the 1938 Line Island Expedition. *'Elepaio* **13**: 22-25, 34-36, 43-44, 48-50, 60-62, 66-69. (Mimeographed.) [Rose visited 4 August 1938 by USCGC *Roger B. Taney.* Very briefly described with mention of *buka* trees, frigate birds, brown- and red-footed boobies, sooty and fairy terns, blue reef heron **13**(10): 66-69.]

70. Dumont d'Urville, J.S.C., 1842. *Voyage au pôle Sud et dans l'Océanie sur les corvettes l'Astrolabe et la Zélée, exécuté par ordre du Roi pendant les années 1837-1838-1839-1840 ... Histoire du voyage.* Gide, Paris. **4**: ii + 410 pp. [Sighting of Rose 23 September 1838: "...qu'un morceau de sable de 200 mètres environ de diamètre couvert d'un bouquet de verdue très-frais et d'un aspect riant: pp.91-92, *cf.* translation by Sachet (1954:3).]

71. Dumstrey, H., 1920. Official visit to the islands of the Manu'a District. *O Le Fa'atonu* **18**(2): 1-2. [Governor Tehune's first visit to Rose reported. Notes on vegetation, absence of insects, abundance of birds, introduced seeds. Not sighted *cf.* Rose Island (1920).]

72. Dunmore, J., 1969. *French explorers in the Pacific.* Vol II: The nineteenth century. Clarendon, Oxford. [vi] + 428 pp. [Freycinet's visit to and naming of Rose, along with brief discussion of Roggeveen's prior discovery pp.94-95.]

73. Duplomb, C., 1924. *Récits maritimes ou lettres*

inédites de Marins français accompagnées de commentaires. Société d'Éditions Géographiques, Maritimes et Coloniales, Challamel, Paris. 158 pp. [Locating and naming of Rose by Freycinet p.61.]

74. duPont, J.E., 1976. South Pacific birds. *Delaware Museum of Natural History Monograph Series* **3**: xii + 218 pp. [Rose included in range of Reef Heron, *Egretta sacra* p.27, Pacific Golden Plover, *Pluvialis dominica fulva* p.44, Bristle-thighed Curlew, *Numenius tahitiensis* p.52, Bar-tailed Godwit, *Limosa lapponica baueri,* Wandering Tattler, *Tringa incana* p.54, Turnstone, *Arenaria interpres* p.56.]

75. Eaton, P., 1985. Land tenure and conservation: protected areas in the South Pacific. *South Pacific Regional Environmental Programme Topic Review* **17**: 103 pp. South Pacific Commission, Noumea. [Rose wildlife refuge summarised p.80; no animals of IUCN conservation concern listed as specifically from Rose pp.99-103.]

76. Eldredge, L.G., 1987. *Bibliography of marine ecosystems: Pacific Islands.* In cooperation with SPREP & UOG. FAO, UNEP Regional Seas Directories and Bibliographies, Rome. 72 pp. [Rose p.69. Used in present compilation.]

77. Elliot, H. [Sir] 1973. Pacific oceanic islands recommended for designation as islands for science. *South Pacific Commission Regional Symposium on Conservation of Nature - Reefs and Lagoons: Noumea, New Caledonia,* 5-14 August 1971, Part II: 287-306. South Pacific Commission, Noumea. [Rose briefly described pp.299-300; reference to Rose Islet containing some atoll phosphate, *Pisonia grandis, Boerhavia* and *Portulaca* forming orthophyll softwood forest, and a few coconut palms, large seabird colonies esp. boobies and frigate-birds pp.299-300.]

78. Elliot, S.B., 1944. *Log kept aboard the Vincennes and the Porpoise by Acting-Midshipman Samuel B. Elliot (19 August 1838 - 18 May 1842).* In *Records of the United States Exploring Expedition under the command of Lieutenant Charles Wilkes, 1838-1842.* File Microcopies of Records No. 75. Roll 17. United States of America, National Archives, Washington. 1944. [Entry for 7 October 1839 notes discovery of Rose at 1000 hrs on W bow and three boats sent ashore. Temperature and wind data noted.]

79. Engbring, J. & F.L. Ramsey, 1989. *A 1986 survey of the forest birds of American Samoa.* US Fish and Wildlife Service, Department of the Interior. [2],vi + 145 pp. [Rose noted as part of American Samoa, uninhabited and isolated p.2. Geographical statistics, table 1. Maps (ex Amerson *et al.,* 1982) p.3. Rose not part of present study pp.4-6. Species recorded table 2, pp.11-14 all ex Amerson *et al.,* (1982). Detailed records, Samoan names, and discussions: residents - *Phaethon rubricauda* (Red-tailed Tropicbird) p.31, *P. lepturus* (White-tailed Tropicbird) p.32, *Sula dactylatra* (Masked Booby) p.32, *S. leucogaster* (Brown Booby) p.33, *S. sula* (Red-footed Booby) p.33, *Fregata minor* (Great Frigatebird) p.34, *F. ariel* (Lesser Frigatebird) p.35, *Egretta sacra* (Reef Heron) p.36, *Sterna lunata* (Gray[*sic*]-backed Tern) p.46, *S. fuscata* (Sooty Tern) p.46, *Anous stolidus* (Brown Noddy) p.48, *A. minutus* (Black Noddy) p.49, *Gygis alba* (White Tern) p.50; "hypothetical" record - *Egretta thula* (Snowy Egret) p.37; migrants - *Pluvialis dominica* (Lesser Golden Plover), *Numenius tahitiensis* (Bristle-thighed Curlew) p.44, *Limosa lapponica* (Bar-tailed Godwit) p.44, *Heteroscleus incanus* (Wandering Tattler) p.44, *Arenaria interpres* (Ruddy Turnstone) p.45, *Calidris alba* (Sanderling) p.45, *Eudynamys taitensis* (Long-tailed cuckoo) p.59; visitor - *Sterna sumatrana* (Black-naped Tern) p.45.]

80. Ewing, H.E., 1924. Ectoparasites of some Polynesian and Malaysian rats of the genus *Rattus. Bernice P. Bishop Museum Bulletin* **14**: 7-11, 2 figs. [*Laelaps echidnus* and *L. hawaiiensis* n.sp. from *Rattus* sp. ex Rose pp.6-7, and possibly *Hoplopleura pacifica* n.sp. *cf.* fig.2, p.10.]

81. Faivre, J-P., 1953. *L'expansion française dans le Pacifique de 1800 à 1842.* Nouvelles Éditions Latines, Paris. [Naming of Rose, "le seule découverte de l'expedition, recif insignificant" p.266, *cf.* Arago (1823).]

82. Fefer, S.I., 1982. *Trip report - Rose Atoll National Wildlife Refuge March 23-26, 1982.* Internal Memorandum, US Fish and Wildlife Service, Hawaiian and Pacific Islands National Wildlife Refuge, 7 pp. [Summary of survey activities and species accounts: itinerary p.2; storm damage observed p.3; *Tournafortia* [*sic*], *Pisonia* pp.2-7; Polynesian Rat observed eating egg p.7; Sooty Tern pp.3,5,7; Red-tailed Tropicbird, Masked Booby, Brown Booby, Red-footed Booby p.4; Great Frigatebird p.3,5; Brown Noddy pp.3,6; White Tern p.7; Blue-gray Noddy, Pacific Golden Plover, Bristle-thighed Curlew, Wandering Tattler, Ruddy Turnstone, Long-tailed New Zealand Cuckoo (call heard, bird not seen), Wedge-tailed Shearwater p.5; turtles p.5]

83. Fefer, S.I., 1984. *Trip report - Rose Atoll National Wildlife Refuge 24-28 April, 1984.* Internal Memorandum, US Fish and Wildlife Service, Honolulu. 5 pp. [Assessment of bird population. Brown and Red-footed Boobies were banded p.2. *Pisonia, Tournafortia* [*sic*] pp.2-5; Red-tailed Tropicbirds, White-tailed Tropicbirds p.2; Masked, Red-footed and Brown Boobies, 17 banded, Masked Boobies recovered p.3; *Boerhavia* p.3; Great Frigatebird, Lesser Frigatebird, Reef Heron, Golden Plover, Ruddy Turnstone, Wandering Tattler, Sanderling, Bristle-thighed Curlew, Gray-backed Tern, Sooty Tern p.4; Brown Noddy, Black Noddy, White Tern, Long-tailed New Zealand Cuckoo p.5; no turtles seen on shore but one Green Turtle seen in lagoon p.5; Polynesian Rats p.5; 13 pp. of data forms from booby

banding attached.]

84. Findlay, A.G., 1851. *A directory for the navigation of the Pacific Ocean with a description of its coasts, islands, etc., from the Strait of Magalhaens to the Arctic Sea and those of Asia and Australia; its winds, currents and other phenomena. Part II. The islands, etc., of the Pacific Ocean.* Richard Holmes Laurie, London. xxx + 651-1388 pp. 3rd edn, 1871, 960 pp. 4th edn, 1877, 1119 pp. 5th edn, 1884, 1252 pp. [Location, description and history of Rose, alias Kordinkoff, based on narratives of Wilkes and Kotzebue: 1st edn, pp.900-901; 3rd edn, pp.548-549; 5th edn, pp.655-656. Descriptions quoted from Belcher (1843) and Mignon are of Rose Island, British Columbia, *cf.* Krause (1972). Title changes in later editions.]

85. Finsch, O. & G. Hartlaub, 1867. *Beitrag zur Fauna Centralpolynesiens. Ornithologie der Viti-, Samoa- und Tonga-Inseln.* Halle: Druck und Verlag von H.W. Schmidt. xl + 290 pp., xiv pls. [Rose mentioned p.x, described p.xi, seabirds discussed p.xviii. Species noted include *Limosa foxii* p.xxvii, *L. uropygalis* (= *L. lapponica*, Bartailed Godwit) p.181, *Tachypetes aquilus* (= *Fregata aquila* = *F. ariel* or *F. minor*, Great or Lesser Frigatebird) p.268.]

86. Flag Day at Manua, 1922-1923. *O Le Fa'atonu* **20**(6): 1-2, 1922; **21**(6): 1-3, 1923; **22**(6): 1-2, 1924; **24**(6): 7-8, 1926; **25**(6): 1-2, 1927; **31**(6): 4, 1933. [Title varies. Newspaper accounts of visits of Governors of Samoa to Manua group, including stopovers at Rose with some accounts of planting coconuts there. Not sighted.]

87. Fosberg, F.R., 1976. Coral island vegetation. **In** O.A. Jones & R. Endean (eds). *Biology and geology of coral reefs.* Academic Press, New York. **3**(Biology **2**): 255-277. [Passing reference to Setchell's (1924) description of Rose flora.]

88. Forsell, D.J., 1989. *Fall Survey of Rose Atoll, 23-30 October 1989.* Administrative Report, US Fish and Wildlife Service, Hawaiian and Pacific Islands National Wildlife Refuge, 20 pp. [Summary of survey activities and species accounts: *Pisonia* pp.3,5,15; *Tournafortia* [*sic*] pp.3,5,6,7,15; *Boerhavia* pp.3,5; coconut palms pp.3,5; *Phaethon rubricauda* (Red-tailed Tropicbird) pp.7-9; *Sula dactylatra* (Masked Booby) pp.7-9; *S. leucogaster* (Brown Booby) pp.7-9; *S. sula* (Red-footed Booby) pp.7-9; *Fregata minor, F. ariel* (Great/Lesser Frigatebird) pp.7-9; detailed reproductive chronology and populations of tropicbirds, frigatebirds and boobies on Rose Atoll, 25-26 October 1989, table 1, p.8; *Sterna fuscata* (Sooty Tern) pp.9,10; *S. lunata* (Gray-backed Tern) pp.9,10; *Anous stolidus* (Brown Noddy) pp.9,10; *A. minutus* (Black Noddy) pp.9,10; *Gygis alba* (White Tern) p.9; *Pluvialis fulva* (Pacific Golden Plover) pp.9,10; *Numenius tahitiensis* (Bristle-thighed Curlew) pp.9,11; *Heteroscelus incanus* (Wandering Tattler) pp.9,11; *Arenaria interpres* (Ruddy Turnstone) pp.9,11; *Rattus exulans* (Polynesian Rat) pp.3,6, recommendation to eradicate p.15; *Chelonia mydas* (Green Turtle) pp.11-14. Rose Island with 30 m grid used for sampling the island, fig.1, p.4. Vegetation on Rose Island, fig.2, p.5; vegetation on Sand Island, fig.3, p.6. Populations of birds estimated on Rose Atoll, table 2, p.9. Turtles tagged on Rose Island, table 3, p.12; tracks and pits of turtles observed at Rose Island, fig.4, p.13; tracks and pits of turtles observed on Sand Island, fig.5, p.14. Bands read on Rose Island, table 4, p.16.]

89. Forsell, D.J., R.A. Bauer & W. Knowles, 1989. *Fall survey of Rose Atoll - 11-15 October 1988.* Administrative Report, US Fish and Wildlife Service, Hawaiian and Pacific Islands National Wildlife Refuge, 20 pp. [Summary of survey activities and species accounts: *Tournafortia* [*sic*] pp.2-5,7,8,11,15; *Pisonia* pp.2-4,7,8,11,15; *Borhavia* [*sic*] pp.3,4; *Portulaca* p.3; coconut palms pp.4,5; *Rattus exulans* (Polynesian Rat) pp.2,3,10,11; *Sterna fuscata* (Sooty Tern) pp.3,7,8; *Phaethon rubricauda* (Red-tailed Tropicbird) pp.3,7; *Sula dactylatra* (Masked Booby) pp.3,6,7; *S. leucogaster* (Brown Booby) pp.3,6,7; *S. sula* (Red-footed Booby) pp.6,7; *Fregata minor* (Great Frigatebird) pp.6-8; *Sterna lunata* (Gray-backed Tern) pp.6,7,8; *Anous stolidus* (Brown Noddy) pp.3,6,7; *Gygis alba* (White Tern) pp.7,9; *Pluvialis fulva* (Pacific Golden Plover) pp.7,10; *Numenius tahitiensis* (Bristle-thighed Curlew) pp.7,10; *Heteroscelus incanus* (Wandering Tattler) pp.7,10; *Arenaria interpres* (Ruddy Turnstone) pp.7,10; Hermit Crabs p.11; *Chelonia mydas* (Green Turtle) pp.5,12,13. Vegetation on Rose Island, fig.1, p.4; vegetation, turtle pits, and turtle tracks on Sand Island, fig.2, p.5. Detailed reproductive chronology and populations of frigatebirds and boobies, table 1, p.6. Populations of birds, table 2, p.7. Data plots of sooty terns nesting in *Pisonia* forest, table 3, p.8. Results of rat trapping effort, table 4, p.11. Measurements and stomach contents of Polynesian Rats, table 5, p.11. Turtles tagged on Rose Island, table 6, p.12; turtle pits and tracks observed on Rose Island, fig.3, p.13. Suggested 30m grid for sampling birds and vegetation on Rose Island, fig.4, p.14.]

90. Fouhy, E. & R.M.C. Thompson, 1980. Selected list of bibliographies of south Pacific islands. New Zealand Oceanographic Institute Miscellaneous Publication 91: 1-30. [Used in present compilation.]

91. Fowler, H.W., 1940. The fishes obtained by the Wilkes expedition 1838-1842. *Proceedings of the American Philosophical Society* **82**(5): 733-800. ["*Exocetus volitans* Linnæus ... and one from near Rosa Island" p.757.]

92. Freycinet, L. de 1826. *Voyage autour du monde entrepris par ordre du Roi ... exécuté sur les corvettes de S.M. L'Uranie et la Physicienne pendant les années 1817, 1818, 1819 et 1820. Navigation et hydrographie.* Première partie. Chez Pilet Aîne, Paris. 378 pp. [Records location of Rose : lat. 14°06'52"S, long. 190°00'05"E.P.

along with "Mouettes, hirondelles, frégates, paille-en-queues, fous, pluviers" p.85, table 13. Discovery and naming of Rose, with notes on plants and animals observed but without landing pp.250-251:

> *L'île Rose,* car c'est ansi que nous l'avons nonmée (voyez *pl.19*) appartient à l'archipel des Navigateurs, dont elle est la plus orientale: nous pensons qu'elle a une demi-lieue de circuit; sa hauteur, en général médiocre, est plus considerable au S.O.; les terres s'abaissant graduellement vers le N.E., où elle viennent se confondre avec les sables du rivage.
>
> Quoique très petite, cette île est bien boisée, ce qui lui donne un air fraîcheur fort agréable. Divers oiseaux de mer paroissent être les seuls habitans de cette solitude: nous y avones remarqué particulièrement des frégates, des fous à ventre blancs, des paille-en-queues des noddis, des hirondelles, et des alouettes de mer, &c. Parmi les arbres, on ne rencontre ni cocotiers, ni aucune autre espèce de palmires.
>
> L'île entière est entourée, ainsi que nous l'avons dit, d'un blanc à fleur d'eau sensiblement triangulaire, mélangé de sable et de madrépores; il est hérissé de petites roches noires, peu saillantes au-dessus de sa surface, et toutes à-peu-près de la même hauteur. Un des angles de ce banc est dirigé vers le S.O.; un autre à l'Est, et le troisième au Nord; ses dimensions sont de trois milles du Nord au Sud, sur un peu moins de l'Est à l'Ouest. La mer brise beaucoup tout autour, et la houle commence à se faire sentir à une ou deux encablures au large: nous avons rangé cependnat sa partie orientale à un mille et demi de distance, sans apercevoir le fond au-dessous de nous.

cf. Arago (1823), Setchell (1924), Bassett (1962) and see translation and commentary in Sachet (1954, p.2). Explanation of plate 19 in Atlas (see below) p.357. Position given as lat: 14°32'47.5"; long(on Paris): 170°17'17.0"/11°21'9.1" p.376.]

93. Freycinet, L. de, 1826. *Voyage autour du monde entrepris par ordre du Roi ... exécuté sur les corvettes de S.M. L'Uranie et la Physicienne pendant les années 1817, 1818, 1819 et 1820. Navigation et hydrographie.* Atlas. Chez Pilet Aîne, Paris. 22 pls. [Pl.19 shows chart of Rose drawn by Duperry, that does not altogether concur with Freycinet's description (see Sachet, 1954), and engraving of landfall. An earlier, ?1819, chart by Frecycinet himself is believed to exist but could not be sourced.]

94. Freycinet, L. de, 1839. *Voyage autour du monde entrepris par ordre du Roi ... exécuté sur les corvettes de S.M. L'Uranie et la Physicienne pendant les années 1817, 1818, 1819 et 1820. Historique.* Deuxième partie. Chez Pilet Aîne, Paris. pp.517-1470. ["Deux jours après [i.e. after 19 October 1819], étant à l'Est des îles des Navigateurs, nous découvrîmes un îlot qui n'étoit pas marqué sur nos cartes, et que j'appelai *île Rose*, du nom d'une personne qui m'est extêmement chère" pp.623-624.]

95. Freycinet, L. de, 1844. *Voyage autour du monde entrepris par ordre du Roi ... exécuté sur les corvettes de S.M. L'Uranie et la Physicienne pendant les années 1817, 1818, 1819 et 1820. Météorologie.* Imprimerie Royale, Paris. xiv + 666 pp. [Contains various meterological observations taken at sea in vicinity of Rose.]

96. Freycinet, Rose de Saulces de, 1927. *Journal de Madame Rose de Saulces de Freycinet, a'après le manuscript original, accompangné de notes par Charles Duplomb. Campagne de l'<<Uranie>> (1817-1820).* Société d'Editions Géographiques, Maritimes et Coloniales, Paris. [Entry for 21 October describes sighting and naming of Rose p.112; chart and landfall figured on unnumbered p.113, *cf.* Bassett (1962).]

97. Friis, H.R. (ed.)., 1967. The Pacific basin: a history of its geographical exploration. *American Geographical Society Special Publication* **38**: 1-457. [*Cf.* Garry (1976).]

98. Garnett, H.C., 1984. Conservation of seabirds in the south Pacific region: a review. **In** J.P. Croxall, P.G.H. Evans & R.W. Schreiber (eds). *Status and conservation of the world's seabirds.* ICPB, Cambridge. x + 778,[1] pp. *International Council for Bird Preservation, Technical Publication* 2: 547-558. [Gives Rose as an important breeding station p.550 and as a refuge p.554.]

99. Garry, R.J., 1967. Geographical exploration by the French. **In** H.R. Friis (ed.). The Pacific basin: a history of its geographical exploration. *American Geographical Society Special Publication* **38**: 201-220. [Naming and discovery of Rose p.215 and see map pp.216-217.]

100. Girard, C.F., 1858a. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN.* Vol. XX. *Herpetology.* Sherman, Philadelphia. xv + 492 pp. [*Chelonia tenuis* n.sp. from Rose pp.459-461.]

101. Girard, C.F., 1858b. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN.* Atlas. *Herpetology.* Sherman, Philadelphia. 10 pp., 23 pls. [This official issue lacks pl.XXXI showing *Chelonia tenuis* n.sp. described above.]

102. Girard, C.F., 1858c. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN.* Vol. XX. *Herpetology.* Lippincott, Philadelphia. 10 pp. 32 pls. [The unofficial issue which contains figure of *Chelonia tenuis* n.sp., described as above from Rose,

pl.xxxi, fig.8.]

103. Goldsmith, F.H., 1951. Rose de Freycinet, first white woman to land in Western Australia? *Journal and Proceedings of the Royal Australian Historical Society* **37**: 58-75. ["A small island in the Navigator Group in the Pacific was also named Rose island after her..." p.71.]

104. Gould, A.A., 1848. [Descriptions of new shells collected by the United States Exploring Expedition, and belonging to the genus Patella]. *Proceedings, Boston Society of Natural History* **2**(1845-1848): 148-153. [*Patella paumotensis* from Rose p.150.]

105. Gould, A.A., 1852. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN.* Vol. XII. *Mollusca and shells.* Gould & Lincoln, Boston. xv + 510 pp. [*Patella paumotensis* described from Rose p.339.]

106. Gould, A.A., 1856. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN.* Atlas. *Mollusca and shells.* C. Sherman, Philadelphia. 16 pp., 52 pls. [*Patella paumotensis*, see above, figured pl.28, fig.440a,b,c.]

107. Gould, A.A., 1862. *Otia conchologica: descriptions of shells and mollusks from 1839 to 1862.* Gould & Lincoln, Boston. [vi] + 256 pp. [*Patella Paumotensis* from Rose p.8 and synonymy with *P. cretacea* and possibly *P. pentagna* op.242.]

108. Graeffe, E., 1873a. Samoa oder die Schifferinseln. I: Topographie von Samoa. *Journal, Museum Godeffroy* **1**(I): 1-32, pls. [Includes brief historical account and description of Rose obtained from Captain Rantzau (q.v.) p.32. Fauna noted includes fish, *Serranus, Scarus*, and turtles *Chelonia mydas* and *C. imbricata.* Maps (pl.1) follow p.295 (of H.IV) and include Rantzau's sketch map of Rose.]

109. Graeffe, E., 1873b. Samoa oder die Schifferinseln. II: Die meteorologischen Erscheinungen in Samoa. *Journal, Museum Godeffroy* **1**(II): 73-83, maps. [Folding map of Samoa follows coloured plates of H.I, and includes details of Apia, Upolu landfalls, and Rantzau's sketch map of Rose, as above.]

110. Graeffe, E., 1873c. Beschreibung der Schiffer - oder Samoa gruppe. *Hydrographische Mittheilungen* **1**: 42-48,51-55,61-64. [Excerpts from Graeffe (1873a) including notes on Rose p.62 (or is it 64) and sketch map of Rantzau (1873). *Hydrographische Mittheilungen* was subsequently renamed *Annalen der Hydrographie* .... Not sighted.]

111. Grattan, C.H., 1963. *The southwest Pacific since 1900: a modern history. Australia, New Zealand, the islands, Antarctica.* University of Michigan Press, Ann Arbor. x + 760, xxviii pp. [American flag raising ceremony on "uninhabited" Rose Island (Muliava) to the east of the Manu'a Group between 17 April 1900 and 16 January 1904 p.359.]

112. Gray, J.A.C., 1960. *Amerika Samoa; a history of American Samoa and its United States Naval Administration.* United States Naval Institute, Annapolis. xx + 295 pp. [Rose ... "is an atoll presumably resting upon the circular rim of a hidden peak" p.9. Notes that in 1860 Herr Weber bought the right to attempt to establish a coconut plantation on "Muliava (The End of Reef), commonly called Rose Island" and stationed caretaking family there for a few years p.119.]

113. Gray, G.R., 1859. *Catalogue of the birds of the tropical islands of the Pacific Ocean in the collection of the British Museum.* London. [iv] + 72 pp. [Species from Rose include *Limosa novae zealandiae* p.50, *Sula fiber* and *Atagen aquilus* p.61.]

114. Great Britain: Hydrographer of the Navy., 1984. *Pacific Islands Pilot. Vol.II. The islands of the south-west part of the Pacific Ocean including Nouvelle Calédonie and Îles Loyauté, Vanuatu, Banks and Torres Islands, Santa Cruz Islands, Fiji Islands, Tonga Islands, Samoa Islands, Tuvalu, Kiribati (Gilbert and Phoenix Groups), Marshall Islands.* (2nd edn 1891, Darling & Son, London, 498 pp.; 4th edn 1908, Taylor, Garnett, Evans, London, 472 pp.; 5th edn 1918, Taylor, Garnett, Evans, London, 696 pp.; 6th edn 1932, HMSO, London, 562 pp.; 7th edn 1946, London; 8th edn 1956, Hydrographic Department, London, 596 pp.; 9th edn Hydrographic Department, Taunton, 605 pp.) 10th edn Hydrographer to the Navy, Taunton. 375 pp. [Location, description of islets, lagoon, passages, foul ground and tidal streams of Rose Atoll p.375.]

115. Great Britain: Hydrographic Department, 1966. *Pacific Islands Pilot, Vol.II. Supplement No.5 - 1966.* 8th edn, 1956 corrected to 17th March, 1966. Hydrographic Department, London, 110 pp. [Deletions and substitutions to text of p.432 of *Pacific Islands Pilot Vol.II*, 8th edn, p.73.]

116. Great Britain. Admiralty. Naval Intelligence Division., 1943. *Geographical Handbook Series.* BR519A. *Pacific Islands* II. *Eastern Pacific.* H.M. Stationery Office, University Press, Cambridge. xiv + 739 pp. [Rose part of Samoa group p.582. Location, general description, details of lagoon and entrance, Sand island, specifics of Rose, history of early sightings and visits, description of reef, plants (*Pisonia, Boerhaavia tetrandra*, grass [!?]), Polynesian rat, lizard, "plentiful sea birds", small turtles pp.675-676. No meteorological data available; no water supplies available p.676. Bibliography of Samoa pp.676-677.]

117. Griffin, A.P.C., 1901. *A list of the books (with references to periodicals) on Samoa and Guam.* United States, Library of Congress, Divisions of Bibliography. Government Printing Office, Washington. 54 pp. [Samoa pp.3-44 includes list of books, articles in learned journals, articles in periodicals, US Consular reports. Not a comprehensive bibliography. Used in present compilation.]

118. Guilcher, A., 1988. *Coral reef geomorphology.* John Wiley, New York. 228 pp. ["Rose Atoll, American Samoa, is the one atoll in the Samoa group, with one passage on leeward (western) side and one islet on windward side": caption to aerial photograph, fig.58, p.88. "The Samoa chain is exceptional in that it includes active volcanoes with fringing reefs in the west (fig.57), and only on atoll, Rose (fig.58) and seamounts in the east" p.90.]

119. Harrison, C.S., T.S. Hida & M. Seki, 1984. The diet of the Brown Booby *Sula leucogaster* and Masked Booby *Sula dactylatra* on Rose Atoll Samoa. *Ibis* **126**(4): 588-590. [Prey items of *S. leucogaster* include ommastrephid squids (*Symplectoteuthis* spp. *S. oualaniensis*), Acanthuridae (*Acanthurus triostegus*), Carangidae, Coryphaenidae (*Coryphaena equiselis*), Exocetidae, Holocentridae (*Holocentrus diadema*), (Mullidae), Scombridae *Katsuwonus pelamis, Thunnus alalunga.* Prey items of *S. dactylatra* include *Cypselurus* spp. and other flying fish, ommastrephid squids including *S. oualaniensis*, and a single skipjack tuna *Katsuwonus pelamis.*]

120. Harrison, P., 1983. *Seabirds: an identification guide.* Croom Helm, Kent. 448 pp. [No records from Rose *per se*, but atoll shown as within range of Tahiti Petrel, Phoenix Petrel, Mottled Petrel p.416, Kermadec Petrel, Herald Petrel, White-necked Petrel p.417, Cook's Petrel, Gould's Petrel, Black-winged Petrel p.418, Parkinson's Petrel p.419, Flesh-footed Shearwater, Wedge-tailed Shearwater, Buller's Shearwater, Sooty Shearwater, Short-tailed Shearwater p.420, Audubon's Shearwater, Wilson's Storm-Petrel p.421, White-faced Storm-Petrel, Black-bellied Storm-Petrel, White-bellied Storm-Petrel, White-throated Storm-Petrel p.422, Red-tailed Tropicbird, White-tailed Tropicbird p.424, Masked Booby, Red-footed Booby, Brown Booby p.426, Great Frigatebird, Lesser Frigatebird p.429, South Polar Skua, Pomarine Skua p.430, Arctic Skua p.431, Black-naped Tern, Grey-backed Tern p.437, Sooty Tern, Crested Tern p.438, Grey Noddy, Brown Noddy, Black Noddy, White Tern p.439.]

121. Hartlaub, G., 1852. Titian Peale's Vögel der „United States Exploring Expedition" im Auszuge mitgetheilt und mit Kritschen Ammerkungen. *Archiv für Naturgeschichte* **18**: 93-128, 129-138. [In two parts, neither dated. *Limosa Foxii* (= *L. lapponica)* recorded from Rose in text p.120; in unlabelled table p.134.]

122. Haskell, D.C., 1968. *United States Exploring Expedition 1838-1842 and its publications 1844-1874: a bibliography.* Greenwood Press, New York. xii + 188 pp., 5 pls. (Originally published in *Bulletin of the New York Public Library,* issues of February 1940 and January, July, and October 1941, and reprinted in 1942 by The New York Public Library, xii + 188 pp., 5 pls.) [Contains full details of the numerous official and unofficial versions of the Wilkes (1845a,b) expedition and other publications and unpublished manuscripts arising from the Expedition. Used in present compilation, and while efforts were made to examine those which were considerd might contain material relevant to Rose, many proved inaccessible.]

123. Henderson, J.W., H.A. Barth, J.M. Heimann, P.W. Moeller, F.S. Soriano & J.O. Weaver, 1971. *Area handbook for Oceania.* US Government Printing Office, Washington. xiii + 555 pp. ["Rose is a double coral atoll at the eastern extremity of the group" p.467, "...is a double, low coral island isolated far to the east of the Manua group. It is a typical atoll covered sparsely with strand vegetation incapable of supporting human life. Moreover, the island is sometimes awash in heavy seas, causing such devastation that settlement has not been attempted" p.471. Vegetation given as coconuts, pandanus [!?], casurina [!?], and "the usual strand growth common to the low, sandy atoll of the Pacific" p.472.]

124. Hofflister, E., 1925. [Given as such by Pereira (1983). See Hoffmeister (1925).]

125. Hoffmeister, J.E., 1925. Some corals from American Samoa and the Fiji Islands.*Carnegie Institution, Washington Papers, Department of Marine Biology* **22**: v + 90 pp., 23 pls. (*Carnegie Institution, Washington Publication* **343**) [Species from Rose include: *Favia pallida* p.23, *Favia rotumana* p.24, *Meandra esperi* p.29, *Acropora valida* pp.60-61, *Acropora africana* p.67, *Porites pukoensis* p.77.]

126. Holmes, A., 1965. *Principles of physical geology.* 2nd edn. Nelson, Edinburgh. xv + 1288 pp. ["Rose Island, an atoll" lies at eastern end of evolutionary sequence of Samoan volcanic chain p.1020.]

127. Holmes, L.D. (compiler & editor) 1984. *Samoan Islands bibliography.* Polyconcepts Publishing, Wichita. vi + 329 pp. [Comprehensive for Samoa as a whole but curiously thin on items concerning Rose. Broad subject headings only. No index. Used in present compilation.]

128. Hopkins, G.H.E., 1927. Butterflies of Samoa and some neighbouring island groups. *Insects of Samoa and some other Samoan terrestrial Arthropoda.* British Museum (Natural History), London. Part III(1): 1-64, 4 pls. ["Rose Atoll has only four species of plants (*Pisonia grandis, Boerhaavea diffusa, Portulaca* sp., and the coconut), and, as might be expected, has no butterfly fauna (Mayor, p.74.)" p.2.]

129. Houston, V.S.K., 1936. Madame de Freycinet in Hawaii - 1819, *Paradise of the Pacific* **48**(11): 18-20, 1 fig. [Story of "Rose-Marie", wife of Captain Freycinet, including naming of Rose Island for her.]

130. Hu, D., 1987. *Rose Atoll trip, 4-12 November 1986.* Internal Memorandum, US Fish and Wildlife Service, Hawaiian and Pacific Islands National Wildlife Refuge, 11 pp. [Itinerary pp.1-2; little evidence of recent sexual reproduction for *Pisonia* and *Tournafortia* [*sic*] p.2; recommends updated aerial photographs since vegetation had changed considerably since last series taken in 1975 p.3; recommends eradication of rats p.9; *Pisonia* pp.1-9; *Tournafortia* [*sic*] pp.1-8; *Boerhavia* pp.2,5; *Portulaca* p.2; Red-tailed Tropicbird, Masked Booby, Brown Booby, Red-footed Booby p.5; Great Frigatebird, Lesser Frigatebird pp.2,5; Reef Heron, Golden Plover p.5; Bristled-thighed Curlew, Ruddy Turnstone, Gray-backed Tern, Sooty Tern, White Tern, Brown Noddy, Black Noddy p.6; Green Turtle p.7; *Rattus exulans* (Polynesian Rat) pp.2,7,8,9; Humpback Whale p.7; *Pisonia* transect locations p.4]

131. Huie, S.F., 1990. *Tiger lilies: women adventurers in the south Pacific.* Angus & Robertson, North Ryde (NSW). [viii] + 218 pp. [Rose de Freycinet's voyage, "A Love Story", summarised pp.22-39. Discovery and naming of Rose pp.32-33. Quotes Pacific Service Board without source reference: "Conceivably, Rose atoll may be the only refuge left for breeding of the turtle fauna of the central Pacific" p.33).]

132. Hutchinson, G.E., 1950. Survey of existing knowledge of biogeochemistry 3. The biogeochemistry of vertebrate excretion. *Bulletin of the American Museum of Natural History* **96**: xviii + 554 pp. [Rose and its phosphates reviewed based on descriptions of Mayor (1924b), Setchell (1924), and Lipman & Shelley (1924) pp.166,167,191-2,194,365,370,371. Includes description of atoll and islets, peaty soil, *Pisonia* grove, birds, and relationship to phosphates, analyses of Lipman & Shelley, with commentary and speculation in light of discoveries on Palmyra.]

133. Islands of the Pacific. 1850. *Weekly Alta California* 16 November 1850, **2**: 2. [Report from *Sydney Morning Herald* includes location of uninhabited Rose at 14°33'S, 167°49'W, and identity with Kordikoff. Reprinted in Ward (1967).]

134. Itano, D., 1987. *Internal memorandum to Director, coral reef assessments on Ofu Reef* (10.2.87), *Rose Atoll* (26.2.87), *Swains Island* (21.4.87), *Ta'u Island reefs* (20.5.87). Office of Marine and Wildlife Resources, American Samoa Government. [Document lost.]

135. Itano, D., 1988. *Rose Island Trip Report, February 24-28, 1988.* Memorandum to Refuge Manager, US Fish and Wildlife Service, Honolulu, Hawaii. 6 pp. [Monitoring trip: "the results of these counts and qualitative observations...suggest little has changed since the last trip". *Lithothamnium, Porolithon, Acropora, Pocillopora* p.2; *Tridacna maxima, Lutjanus gibbus, L. kasmira, Caranx lugubris* pp.3,4; *C. ignobilis, Pinctada margaritifera* (Black-lipped Pearl Oyster), *Acanthaster planci* (Crown-of-thorns Starfish), *Trianodon obesus* (White-tipped Reef Shark) p.5.]

136. Jenkins, J.A.F., 1983. A preliminary list of Pacific island bird literature. *Australasian Seabird Group Newsletter* 19 (Special Issue): 1-75. [Used in present compilation.]

137. Jenkins, J.S., n.d. *Explorations and adventures in and around the Pacific and Antarctic Oceans. Being the voyage of the US Exploring Expedition Squadron, commanded by Captain Charles Wilkes* ... Hurst & Co., New York. 517 pp. [Rose briefly described: "a low circular coral islet, with a lagoon in the centre, nearly inundated in high water, and covered to the very rim with tall and graceful pisonias" p.192.]

138. Jenkins, J.S., 1850. *United States Exploring Expeditions. Voyage of the US Exploring Squadron, commanded by Captain Charles Wilkes... in 1838, 1839, 1840, 1841, and 1842: together with explorations and discoveries made by Admiral D'Urville, Captain Ross, and other navigators and travellors...* James M Alden, Auburn, N.Y., xxii + 23-517,[xi] pp. [Meeting of *Vincennes* and *Porpoise* at Rose Island on 7 Oct 1839 with similar content to Jenkins (n.d.) p.192. Other edns 1854, 1855.]

139. Jenkins, J.S., 1853. *Recent exploring expeditions in the Pacific, and the South Seas, under the American, English, and French Governments.* Nelson, London. viii + 508 pp. [As above, Jenkins (n.d.), p.180.]

140. Johnson, R.I., 1964. The Recent Mollusca of Augustus Addison Gould. Illustrations of the types described by Gould and a catalog of his species. *United States National Museum (Smithsonian Institution) Bulletin* **239**: [vi],182 pp, 45 pls. [2 specimens of *Patella paumoensis* from Rose, USNM#5830, MCZ#216775, p.123.]

141. Jones, D.S., D.F. Williams & C.S. Romanek, 1986. Life history of symbiont-bearing giant clams from stable isotope profiles. *Science* **231**(4733): 46-48. [*Tridacna maxima* (and *Terebra areolata*) C^{12}/C^{13} from Rose.]

142. Jordan, D.S. & A. Searle, 1906. Fishes of Samoa. *US Bureau of Fisheries Bulletin* **25**: 173-455, I-XXX [Rose included as one of "The islands whose fish fauna is considered", p.180, but does not appear to be given as locality of any of the species documented systematically.]

143. Keating, B., 1985. Paleomagnetic studies of the Samoan Islands: results from the islands of Tutuila and Savaii. In T.M. Brocher (ed.). Geological investigations of the Northern Melanesian Borderland, *Circum-Pacific Council for the Energy and Mineral Resources Earth Science Series,* **3**: 187-199. [Rose briefly noted as the southeasternmost island having no igneous outcrops p.188.]

144. Keesing, F.M., 1934. *Modern Samoa: its government and changing life.* Allen & Unwin, London. 506 pp. [Bibliography pp.495-500 includes General, American and Western Samoan documents including both official and unofficial records, but little obvious Rose content. See Allen's (1922) *Stewart's Handbook* for fuller coverage.]

145. King, W.B., 1967. *Preliminary Smithsonian identification manual Seabirds of the tropical Pacific Ocean.* US National Museum, Washington. 126 pp. [Rose not specifically given as locality in text but atoll shown as being within the range of various species as for Harrison (1983).]

146. King, W.B., 1973. Conservation status of birds of central Pacific islands. *Wilson Bulletin* **85**: 89-103. [Rose included on map p.90, in table p.97, and in text ("has substantial seabird populations including a Sooty Tern colony") pp.98,101.]

147. Kotzebue, O. von, 1830. *A new voyage around the world in the years 1823, 24, 25, and 26.* Colburn & Bentley, London. **1**: 341 pp., **2**: 362 pp. [Rose sighted and named Kordinkoff, after his lieutenant 2 April 1824 **1**: 256-257.]

148. Krämer, A., 1897. *Ueber den Bau der Korallenriffe und die Planktonvertheilung an den Samoanischen Küsten nebst vergleichenden Bemerkungen.* Lipsius & Tischer, Kiel, Leipzeg. xi + 174 pp. [Brief description with reference to coconuts p.17; geological relationship within archipelago p.23; atoll reefs including relevance to Darwin's theory pp.39,51 *et seq.*; extended description, including references to *Sula, Sterna, Pisonia,* Portulacea, attempts at coconut planting, Dana's observations of basalt (with incorrect reference), and Sand Island; map p.50.]

149. Krämer, A., 1902-1903. *Die Samoa-Inslen. Entwurf einer Monographie mit besonderer Berücksichtigiung Deutsch-Samoas. Herausgegeben mit Unterstützung der Kolonialabteilung des Answärtigen Amts.* E. Schweizerbartsche Verlagsbuchhandlung, Stuttgart. **1**: xii + 509 pp. 3 pls, 3 maps; **2**: x + 445 pp. 2 pls. [Rose mentioned as part of group **1**: 7. Includes some passing references to Rose's early European visitors **2**: 2,5,16,27, its reef **2**: 391 and presence of *Dysporus sula* (= *Sula sula)* ex Wilkes **2**: 425. Bibliography **1**: 470-475, **2**: 435-439. Index vol.**2**. A limited edition, English translation exists, published in cyclostyled form by Western Samoa, Department of Native Affairs, 1942, and bound in 9 parts of 1024 pp. Copies are held at Mitchell Library, Sydney, and Library, Auckland Institute and Museum. Page transposition tables exist in the backs of volume 1, part 5, and volume 2, part 4. Roggeveen's name for Rose: *Vuil Eiland* is translated as "good for nothing island" **2**(1): 7.]

150. Krause, N.L.H., 1972. Bibliography of Rose Atoll, American Samoa. *Pacific Islands Studies and Notes* No.5 (May 1972): 1-5. (Privately published and circulated.) [Contains many similar citations from Sachet (1954). Used in present compilation. Gives Roggeveen's "Vuyle Eyland" name for Rose as "Bird Island."]

151. Kridler, E., 1971. *Biological ascertainment - Rose Atoll, American Samoa.* US Fish and Wildlife Service, Honolulu, Hawaii. [Unpublished report. Review of history cites Bryan (1939) and Sachet (1954) pp.1-2; physical description, reef composed almost entirely of *Lithothamnium,* large limestone and olivine basalt blocks p.3; vegetation includes *Pisonia grandis, Cocos nucifera, Messerschmidia argentea, Boerhavia diffusa, Portulaca lutea* p.4; bird species seen are quantified; notes lack of burrowing bird species. *Phoeton* [*sic*] *rubricauda* p.5, *Phaethon lepturus, Sula dactylatra, S. leucogaster, S. sula, Fregata minor* p.6, *Sterna fuscata* (most abundant species on island, est. 16,000 chicks), *Sterna lunata, S. anaethetus, Anous stolidus* p.7, *Anous minutus, Gygis alba, Pluvialis dominicus, Arneria* [*sic*] *interpres, Numenuis* [*sic*] *tahitiensis, Heteroscelus incanus* p.8, *Demigretta sacra* (white phase), *Rattus exulans* p.9; *Chelonia mydas* (Green Turtle) observed and tagged, *Eretmochelys imbricata* (Hawksbill Turtle) mentioned but not observed p.10; *Cypraea* (gastropod), *Tridacna* (clams) observed p.11; recommendations for management as a wildlife refuge p.12; justifications for acquisition as refuge include protection of Hawksbill Turtle, habitat protection and as a research site pp.13-14.]

152. Lamberts, A.E., 1983. An annotated checklist of the corals of American Samoa. *Atoll Research Bulletin* **264**: ii + 19 pp. [First visit to Rose by a scientist, Pickering with US Exploring Expedition, p.1. *Acropora africana* sole species listed from Rose, ex Mayor (1924b) p.4.]

153. Langdon, R. (ed.), 1979. *Thar she went: an index to the Pacific ports and islands visited by American whalers and traders in the 19th century, being a supplement to "American Whalers and Traders in the Pacific: a guide to the records on microfilm".* Pacific Manuscript Bureau, Research School of Pacific Studies, Australian National University, Canberra. x + 159 pp. [Rose visited 25 Feb 1837 by *Newark* (PMB#837), 29 Nov 1846 by *Stephania* (PMB#269), 8 Dec 1849 by *Pioneer* (PMB#888) p.129. Presumably these references are to Rose Island, Samoa and not Rose Island, British Columbia.]

154. Langdon, R. (ed.), 1984a. *Where the whalers went: an index to the Pacific ports and islands visited by American whalers (and some other ships) in the 19th century*. Pacific Manuscripts Bureau, Research School of Pacific Studies, Australian National University, Canberra. xx + 298 pp. [As for 1979, p.211.]

155. Langdon, R., 1984b. European discovery. **In** P. Stanbury & L. Bushell (eds). 1984. *South Pacific islands*. The Macleay Museum, University of Sydney. pp.3-19. [Discovery of Rose by Roggeveen p.12]

156. Lee, A.I.N. (ed.), 1980. *Fertilizer mineral occurrences in the Asia-Pacific region*. East-West Resource Systems Institute, Honolulu, 156 pp. [Rose appears to be shown as a small phosphate deposit, map 17, p.109, but is not named in key p.142.]

157. Leeson, I., 1954. *A bibliography of bibliographies of the South Pacific*. Oxford University Press, London. x + 61 pp. [Rose included under American Samoa (7 entries) pp.18-19 and among various subject bibliographies pp.145-376. Used in present compilation.]

158. Leib, A.P., 1972. *The many islands of Polynesia*. Chas. Scribner, New York. viii + 216 pp. [Rose mentioned as part of American Samoa p.67.]

159. Lewin, E., 1931. *Subject catalogue of the library of the Royal Empire Society, formerly Royal Colonial Institute* Vol.2: *Australia, New Zealand, South Pacific, voyages and travels, Arctic and Antarctic*. Royal Empire Society, London. vii + 763 pp. [South Pacific 483-520, Samoa 544-548. Used in present compilation.]

160. Lewin, E., 1944. The Pacific region: A bibliography of the Pacific and East Indian islands, exclusive of Japan. *Royal Empire Society Bibliographies* **11**: 1-76. [Samoa pp.44-45. Used in present compilation.]

161. Lipman, C.B., 1921. Studies on sea-water bacteria and other subjects in the South Seas. *Carnegie Institution of Washington Year Book* **19**: 196-197. ["Rose Island Notes" briefly summarise soil studies as detailed in Lipman & Shelley (1924b) including presence of *Azotobacter chroococcum* and possible economic exploitation of deposit for fertiliser purposes p.197.]

162. Lipman, C.B. & P.E. Shelley, 1924a. The chemical composition of *Lithothamnium* from various sources. *Carnegie Institution of Washington Publication* **340**: 193-197. (= *Papers from Department of Marine Biology, Carnegie Institution of Washington* **19**: 193-197.) [*Porolithon craspedium* f. *mayorii* specimen from Rose used in study p.195, with analysis pp.196-197,199.]

163. Lipman, C.B. & P.E. Shelley, 1924b. Studies of the origin and composition of the soil of Rose Islet. *Carnegie Institution of Washington Publication* **340**: 201-208. (= *Papers from Department of Marine Biology, Carnegie Institution of Washington* **19**: 201-208.) [Includes pedology, chemical composition, discussion of origin of phosphate with conclusion that phosphorous derived by leaching of lithothamnium rock, role of *Pisonia*.]

164. Lipman, C.B. & J.K. Taylor, 1924. Bacteriological studies of Rose Islet soils. *Carnegie Institution of Washington Publication* **340**: 209-217. (= *Papers from Department of Marine Biology, Carnegie Institution of Washington* **19**: 209-217.) [Eight samples show very high populations in organic-rich soil from beneath *Pisonia*. Twenty-six types of colonies include actinomycetes, bacteria, and a mould. Both nitrite- and nitrate-producing bacteria present, possibly including *Azotobacter*.]

165. Ludwig, G., 1982a. *Trip report - Rose Atoll National Wildlife Refuge March 23-26, 1982*. Internal Memorandum, US Fish and Wildlife Service, Hawaiian and Pacific Islands National Wildlife Refuge. 13 pp. [Summary of survey activities: itinerary p.1; use of refuge for education, substrate samples collected for analysis of micromollusc community p.2; change in configuration of island due to storm p.5; 61 clams harvested to determine size at maturity, 20 clams tagged and measured during November 1981 trip re-measured, 13 new clams tagged p.5; photographs and measurements of parts of atoll taken to facilitate accurate mapping, description of outer reef pp.6,7; absence of sharks on outer reef noted p.7; *Pisonia* pp.1,3,4; *Messerschmidia* pp.1,3; Masked Booby, Brown Booby p.2; White-tailed Tropicbird p.4; Green Turtle, Hawksbill Turtle (mentioned, not seen) pp.2,3; Polynesian Rat pp.4,7; *Tridacna maxima* pp.2,4,5; *Cenabyta* [*sic*] (Red Hermit Crab) seen mating p.4; ghost, graspid and juvenile coconut crabs p.4; *Pocillopora* p.6. Size and weight of tridacnid clams, table 1, pp.8,9. Length frequency for tridacnid clams on pinnacles, table 2, p.11. Data summary for tridacnid clam growth study, table 3, p.10. Unlabelled photographs showing patch reef sizes and locations pp.12,13.]

166. Ludwig, G., 1982b. *Trip report - Rose Atoll NWR - October 1-15, 1982*. Internal Memorandum, US Fish and Wildlife Service, Hawaiian and Pacific Islands National Wildlife Refuge, 12 pp. [Summary of survey activities: itinerary pp.1-4; *Tridacna maxima* spawning noted while gathering length, frequency and growth data p.4; *Pisonia* pp.4-7,11; *Tournafortia* [*sic*] pp.4-8; lush *Boerhavia, Portulaca* growth p.4; *Padina* and *Halimeda* dominant marine vegetation p.4; one *Megaptera novaeangliae* (Humpback Whale) observed p.4; *Rattus exulans* abundant and fearless p.4; *Phaethon rubricauda, P. lepturus, Sula dactylatra* p.4; *S. leucogaster, S. sula, Fregata minor, F. ariel, Egretta sacra, Pluvialis dominica* p.5; *Arenaria interpres, Heteroscelus incanus, Numenius tahitiensis, Sterna fuscata, Anous stolidus, A. tenuirostiris* p.6; *Gygis alba, Urodynamis taitensis, Foulehaio carunculata* (not a positive identification) p.7; six *Chelonia mydas* tagged p.7; turtle observations pp.7-9; *Carcharhinus melanopterus* (Black-tipped Reef Shark) abundant p.9;

four fish species, not recorded by Wass (n.d.) observed: *Chaetodon trifacialis, Centrepyge* [*sic*] *multispinis, Pterois volitans, Malacanthus latovittatus* p.9; crabs included *Coenobita* sp., graspids, *Birgus latro* p.9; no Palolo Worm (*Palolo viridis*) seen in emergence night surveys p.10; unlabelled map of turtle sightings p.10.]

167. Mac Carthy, J., 1822. *Choix de voyages dans les quatre partie du monde ... entrepris depuis l'année 1806 jusqu'a ce jour.* La Librairie Nationale et Étrangère, Paris. **10**: 267 pp. [Locating and naming of Rose by Freycinet p.143.]

168. McCutcheon, M., 1991 Contents list and indexes for the Atoll Research Bulletin. *Atoll Research Bulletin* **347**: 145 pp. [Multiple indexes. Sole reference to Rose is Sachet (1954).]

169. Maragos, J.E., 1985. *Coastal resource development and management in the US Pacific Islands.* Office of Technology Assessment, US Congress. Mimeographed draft. 132 pp. [Rose atoll described as "eastermost and oldest island" of American Samoa p.28.]

170. Maragos, J.E., 1986. *Coastal resource development and management in the US Pacific Islands: 1. Island-by-island analysis.* Office of Technology Assessment, US Congress. Draft. [Believed to contain relevant information. Not sighted.]

171. Marques, A., 1889. Notes pour servir à une monographie des îles Samoa. *Boletim Sociedade Geographia de Lisboa* **8**: 5-158. [Includes description of Rose mentioning vegetation and abundance of birds with map p.?13. Not sighted.]

172. Marshall, P., 1911. Oceania. **In** G. Steinmann & O. Wilkens (ed.). *Handbuch der Regionalen Geologie.* **7**(2): 1-36. [Rose mentioned as part of Samoan Islands p.10.]

173. Mathews, G.M., 1929. Notes on Vol. VIII of the 'United States Exploring Expedition,' by Titian R. Peale, published in 1848. *Ibis* **5**(12): 690-700. ["231. *Limosa foxii* = *Vetola lapponica baueri* (Naumann) (Systema Avium Australasianarum, p.168). Rose Island, Samoa." p.698. Note that although Systema Avium Australasianarum lists *L. foxii* it does not mention Rose.]

174. Maugin, A., 1863. *Voyages et découvertes outre-mer au XIX^e^ siècle.*Anon Mame, Tours. 468 pp. [Brief mention of locating and naming of Rose by Freycinet p.99.]

175. Mayor, A.G., 1920. Rose Island (Nuu o Manu). *O Le Fa'atonu* **18**(7): 4. [Not sighted *cf.* Dunstrey (1920), Rose Island (1920).]

176. Mayor, A.G., 1921a. Department of Marine Biology Annual report. *Carnegie Institution of Washington Year Book* **19**: 185-193. [Rose referred to by way of acknowledgement to Commander Warren Jay Terhune facilitating access to Rose by first "man of science" since 1839, p.185; coral upon emerged limestone rim at Rose 8 feet above present sea level p.187.]

177. Mayor, A.G., 1921b. Rose Atoll, American Samoa. *Proceedings, American Philosophical Society* **60**(2): 62-70. [Careful geographic and geological description of the atoll based on 24 hour visit 5-6 June 1920, including vegetation (*Pisonia grandis* pp.62-63, *Boerhaavea diffusa, Portulaca* p.63), seaweeds and other Algae (*Caulerpa),* corals *(Favites, Porites, Symphyllia, Pocillopora, Acropora), Tridacna,* gastropods, *Cidaris, Diadema* and other echinii, Holuthuria, sphinx moth larvae (*Celerio*), "a few gnats and occasional house fly which may have been introduced from the USS. *Fortune*", *Sula, Anous*, frigatebirds, ?Polynesian rat, a lizard (*Lepidodactylus lugubris*), a small cetacean skull), along with partial analysis of calcareous and phosphatic rocks and soils. Concludes that most visible material is of algal origin. Specific reference to absence of volcanic rock p.69, *cf.* Couthouy (1844) and Wilkes (1852) but see Sachet (1954, p.11).]

178. Mayor, A.G., 1921c. Rose Atoll in its relation to recent sea levels. *Science* **54**(1399): 390. [Very brief note observing that "atoll rim was once about 8 feet higher than at present, and has been cut down nearly to present sea level after the ocean subsided to this extent in recent times", the presence of *Pisonia, Portulaca*, and *Boerhaavea*, and "A rat allied to a Malayan form".]

179. Mayor, A.G., 1924a. Structure and ecology of Samoan reefs. *Carnegie Institution of Washington Publication* **340**: 1-25. (= *Papers from Department of Marine Biology, Carnegie Institution of Washington* **19**: 1-25.) [Rose described as an "atoll-rim" displaying the 10 ft a.s.l. bench, seen in other Samoan islands, in undercut limestone blocks p.1.]

180. Mayor, A.G., 1924b. Rose Atoll, American Samoa. *Carnegie Institution of Washington Publication* **340**: 73-79. (= *Papers from Department of Marine Biology, Carnegie Institution of Washington* **19**: 73-79.) [More or less identical content to Mayor (1921b) but with some added comments in discussions and 5 photos, pls 27A,B,C. 28A,B following p.75.]

181. Mayr, E. & D. Amadon, 1944. Birds collected during the Whitney South Sea Expedition. XLVI. Geographical variation in *Demigretta Sacra* (Gmelin). *American Museum Novitates* 1144: 1-11. [Female specimen from Rose listed p.10.]

182. Memoranda., 1846. *The Sandwich Island News* (Honolulu) 2 Sep 1846, **1**. [Whale ship *Inez* reported aground on Middleton/Rose Island reef but incident may have occurred in north Pacific, *cf. Boston Journal* (1847). Similar report in *Boston Post* 4 February 1847. Reprinted in Ward (1967, **4**: 532-533).]

183. Meinicke, C.E., 1875-1876. *Die Inseln des Stillen Oceans: Eine Geographische Monographie.* Paul Frohberg, Leipzig. **1**(1875): viii + 382 pp; **2**(1876): vi + 487 pp. (Reprinted 1969, Meridan Publishing, Amsterdam.) [Rose summarised **2**: 110 with synonyms: Vuile Eyland (Roggeveen) and Kordinkoff (Kotzebue) based on Graeffe and Couthouy.]

184. Menard, H.W., 1986. *Islands.* Scientific American, New York. 230 pp. [Rose's geological place in Samoan island chain discussed: "There are no age measurements from Rose atoll, but the fact that it is an atoll suggests that it is relatively old. However, old and young islands are mixed together in most archipelagoes. Thus it is reasonable to interpret Rose as an old island that just happened to drift to where it is. Once Rose is eliminated, all is well" p.186 and cf. illustration p.188.]

185. Merrill, E.D., 1924. Bibliography of Polynesian botany. *Bernice P. Bishop Museum Bulletin* **13**: 1-68. [Updated below.]

186. Merrill, E.D., 1937. Bibliography of Polynesian botany. *Bernice P. Bishop Museum Bulletin* **144**: 1-194. [Updated below.]

187. Merrill, E.D., 1947. A botanical bibliography of the islands of the Pacific. *Contributions from the United States National Herbarium* **30**(1): 1-322. [An enlargement of the two bibliographies above, it is easily accessed by use of the separate index (Walker, 1957). Used in present compilation.]

188. Mitchell Library, The Public Library of New South Wales, 1968. *The Mitchell Library, the Public Library of New South Wales dictionary catalog of printed books.* G.K. Hall, Massachusetts, 38 vols. Supplement, 1970. [An author, title, subject index. Only two entries for Rose Island: Setchell (1924), Freycinet (1927).]

189. Monfat, A. [Le P.] 1890. Les Samoa ou Archipeldes Navigateurs: étude historique & religieuse. Libraire Générale Catholique et Classique, Lyon. xv + 415 pp. [... "plus à l'est encore, le gracieux bouquet de verdeux et de fleurs qu'on a nommé l'île *Rose*" pp.1-2.]

190. Montémont, A., 1839. *Biblioteca universale dei viaggi effettuati per mare o per terre nelle diverse parti del mondo* ... G. Antonelli, Venezia. **17**: 1-576. [Locating and naming of Rose by Freycinet p.298.]

191. Montémont, A., 1853. *Voyages autour du Monde et en Océanie* ... Chez J. Bry Ainé, Paris. (Sections individually paged. Issued as Vol. 2 of author's *Histoire des voyages* ..., 1853-1855, 5 vols in 3.) [Locating and naming of Rose by Freycinet p.20 of Freycinet section.]

192. Montémont, A. [n.d.] *Collection de voyages modernes effectués par mer ou par terre dans les cinq parties du monde* ... Armand-Aubrée, Paris. **2**: 456 pp. [Locating and naming of Rose by Freycinet p.106.]

193. Morrell, T., B. Ponwith, P. Craig, T. Ohashi, J. Murphy & E. Flint, 1991. Eradication of Polynesian rats (*Rattus exulans*) from Rose Atoll National Wildlife Refuge, American Samoa. 24 pp. [Unpublished report. Poison (brodifacoum) and traps were used to kill 920 rats in a 38-day campaign to eradicate the rat population at Rose. A follow-up trip, six months later, will determine the success of the project. Vegetation: *Boerhavia repens, Pisonia grandis, Messerchmidia argentea, Cocos nucifera* p.4; sea turtles: *Eretmochelys imbricata, Chelonia mydas* nesting p.5; bird species affected by trapping campaign: *Sterna fuscata, Urodynamis taitensis, Pluvialis squatarola, Numenius tahitiensis* p.15; known distribution of commensal rats on oceanic islands, fig.1, p.3; distribution of 14 trapping areas, fig.2, p.6; distribution of poison stations, fig.3, p.9; number of poisoned and trapped rats collected during study, fig.4, p.11; percent trap success, fig.5, p.12; percent of total bait removed and number of poisoned rats observed, fig.6, p.14.]

194. Moyle, R.M. (ed.), 1984. *The Samoan journals of John Williams 1830-1832.* Australian National University Press, Canberra, *Pacific History Series* **11**: x + 302 pp. [Account of some people of Raivavae stranded for some months on Muliava, (Samoan name for Rose), surviving on fish and coconuts pp.99-100. Rose location given as 14°12'S, 167°50'W and 70 miles east of Samoa, a "small uninhabited island" p.216.]

195. Munro, G.C., 1949. Some seeding plants detrimental to birds. *'Elepaio* 9(10): 50-51. (Mimeographed). [Ecological notes include mention of fairy terns in "*Pisonia sandwichensis*" on Rose and expressing the hope "that few of them get fatally gummed with its seeds" p.50.]

196. Nass, R.D., 1971. *Rodent survey of American Samoa's Tutuila Island and Rose Island.* Bureau of Sport Fisheries and Wildlife, Hilo, Hawaii. 8 pp. [Unpublished report of assessment of rat population conducted during a 24 hour visit. Polynesian rats trapped and observed. No rat predation on birds, bird eggs, turtle eggs or hatchlings observed, but a longer study recommended. *Pisonia, Messerchmidia* [*sic*] p.6.]

197. Natland, J.H., 1980 The progression of volcanism in the Samoan linear volcanic chain. *American Journal of Science* **280A**: 709-735. [Rose noted as being at eastern end of chain p.710, 725. It "is much younger and smaller than [the Samoan] drowned platforms. The age of its volcanic substrate is unknown, but it could be very young, since it has no wide offshore bank" p.725. Immaturity illustrated by comparison with other Samoan islands table 2, p.726.]

198. Natland, J.H. & D.L. Turner, 1985. Age

progression and petrological development of Samoan shield volcanoes: evidence from K-Ar ages, lava compositions, and mineral studies. In T.M. Brocher (ed.). Geological investigations of the Northern Melanesian Borderland. *Circum-Pacific Council for the Energy and Mineral Resources Earth Science Series*, 3: 139-171. ["An atoll, Rose Islet, unknown to Dana is at the eastern end of the chain" p.140 *cf.* Dana (1849, 1851, 1872).]

199. Nelson, J.B., 1978. *The Sulidae: gannets and boobies*. University of Aberdeen, Oxford, 1012 pp. [*Sula leucogaster*, Brown Booby, reported breeding on Rose in 1938 p.446; *Sula sula*, Red-footed Booby, reported 1924, 1938 p.674.]

200. New Zealand: Department of Lands & Survey, 1978. *Atlas of the South Pacific*. Government Printer, Wellington. 47 pp. [Small inset map of Rose, plate 15, with very brief notes on nature of islet and vegetation on facing p.29.]

201. Nicholson, E.M. (convener) 1969. Draft check list of Pacific oceanic islands. *Micronesica* 5(2): 326-463. (Includes introduction by G. Douglas pp.332-333.) [Rose documented p.372 as low coral atoll, 7000 m^2 (1.8 acres), with two islets, a *Pisonia grandis, Boerhavia*, and *Portulaca* forest, many sea birds (boobies and frigates), few coconuts, and atoll phosphate. Sachet (1954) sole reference.]

202. Orth, A.B., 1973. *Rose Island bird survey, 1 June 1973*. Office of Marine and Wildlife Resources, Government of American Samoa, Pago Pago. 9 pp. [Unpublished report of study conducted to estimate sea bird population of Rose. *Pisonia grandis* pp.1-4,6-8, *Boerhaavia tetrandra, Portulaca lutea* pp.1-5, *Messerschmidia argentea* p.1, *Cocos nucifera* pp.1,6, *Sula leucogaster plotus* (Brown Booby) pp.1,4-5, *S. dactylatra persona* (Blue-faced Booby) pp.1,5, *Fregata minor* (Great Frigatebird) pp.1,3,4, *Sterna fuscata* (Sooty Tern) pp.1,7, *Anous stolidus* (Brown Noddy) pp.1,7, *Anous minutus* (White-capped Noddy) pp.1,7, *Phaethon rubricauda* (Red-tailed Tropicbird) pp.1,3-6, *P. lepturus* (White-tailed Tropicbird) pp.1,3,6, *Gygis alba* (White Tern) pp.1,3,6, *Numenius tahitiensis* (Bristle-thighed Curlew) p.2, *Sula sula* (Red-footed Booby) pp.2-4, *Heteroscelus incanus* (Wandering Tattler) p.2, *Arenaria interpres* (Ruddy Turnstone) p.2, *Demigretta sacra* (Reef Heron) p.2, *Geograpsus* (land crab) p.6, *Coenobita sp.* (Hermit Crab) p.6, *Rattus exulans* (Indo-Pacific rat) p.6. Estimated numbers of nests in *Pisonia* grove from sample, table 1, p.4. *Boerhaavia-Portulaca* habitat nest count, table 2, p.5. Incidental sightings, table 3, p.6.]

203. *Pacific Islands Year Book* (R.W. Robson, ed.). 1932. Pacific Publications, Sydney. 334 pp. [1st edn, see below. Rose mentioned as uninhabited double island, part of Eastern (American) Samoa p.249.]

204. *Pacific Islands Year Book* (J. Tudor, ed.). 1972. 11th edn. Pacific Publications, Sydney. lxii + 543 pp. [See above and below. Rose mentioned as uninhabited double island, part of American Samoa p.119.]

205. *Pacific Islands Year Book*. 1977. 12th edn. Pacific Publications, Sydney. 432 pp. [See above. Rose mentioned as uninhabited part of American Samoa p.20.]

206. Park, Chai Bin. 1979. Population of American Samoa. *ESCAP/SPC Country Monograph Series*, South Pacific No. 7. Economic and Social Commission for Asia and the Pacific: Bangkok, Thailand : United Nations, and South Pacific Commission : Noumea, New Caledonia. vi + 73 + 6 pp. [Rose noted as part of American Samoa p.1 with small sketch map p.46; does not mention that Rose is uninhabited.]

207. Peale, T.R., 1848. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN*. Vol. VIII. *Mammalia and ornithology*. C. Sherman, Philadelphia. xxv + 338 pp. [Rose given as type locality of *Limosa foxii* [= *Limosa lapponica*], collected by Dr J.L. Fox USN. p.231.]

208. Pereira, J.A., 1983. *A check list of selected material on Samoa. 1. General bibliography*. Samoan History Writing Project, University of the South Pacific Extension Centre, Western Samoa. iii + 437 pp. [Comprehensive. Broad subject headings. Author index only. Used in present compilation.]

209. Pickering, C., 1876. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN*. Vol. XV. *The geographical distribution of animals and plants*. Part II. *Plants in their wild state*. Naturalists Agency, Salem, Mass. 524 pp., 4 double page maps. [Eye witness account of "ROSE CORAL-ISLAND" by member of US Exploring Expedition including appearance at landfall, general description of lagoon, entrance and reef, note of tidal range, presence of blocks of vesicular lava up to twenty pounds weight and comments on their likely origin, lack of vegetation on Sand Islet, description of land flora on Rose islet (*Portulaca* and *Calpidia ovatifolia*? [= *Pisonia grandis*]) pp.235-236.]

210. Ponwith, B.J., 1990. *Turtle observations from Rose Atoll, 18 October to 28 November, 1990*. 8 pp. [Unpublished report. Account of all turtle activity observed at Rose Atoll during rat eradication project of Morrell *et al.*, (1991). Two turtles tagged, and turtle tagged in 1981 observed nesting on Rose. *Chelonia mydas* p.1; turtle sighting log, table 1, pp.4-5; locations of turtle sightings by observation number, fig.1, p.6; turtle pit counts by location for Rose, fig.2, p.6; locations of turtle pits on Sand Island, fig.3, p.7.]

211. Pratt, H.D., P.L. Bruner & D.G. Berrett, 1987. *A field guide to the birds of Hawaii and the tropical*

Pacific. Princeton University Press, Princeton, New Jersey. 409 pp. 45 pls. [Rose mentioned as refuge p.43; breeding records are Red-tailed Tropicbird, *Phaethon rubricauda* p.79, Lesser Frigatebird, *Fregata ariel* p.85; vagrant record of Snowy Egret, *Egretta thula* p.88.]

212. Radtke, R., 1985. *Population dynamics of the Giant Clam Tridacna maxima at Rose Atoll*. Hawaii Institute of Marine Biology, University of Hawaii. 24 pp. [Includes information on growth, mortality, potential yield, and a population dynamics model. General life history of giant clams and study site description pp.1-2; "*Corculum candissa*, the only other bivalve known to keep zooxanthellae" p.2; Rose Atoll map, fig.1, p.3; *Pisonia grandis* p.2; population size, location of transect areas, fig.2, p.4; length measurement technique fig.3, p.5; size frequency distribution of *Tridacna maxima*, at Rose for 1982 fig.4, and 1984 fig.5, p.6; age analysis pp.7-11; *Tridacna gigas* p.8; length frequency distribution of *Tridacna maxima* from Rose Atoll by transect location figs 6,7, pp.7-8; compiled length-frequency data for *Tridacna maxima* at Rose Atoll fig.8, p.9; age estimates for *Tridacna maxima* determined from internal laminations found in shells compared to shell lengths, fig.9; *Antarctica islandica* (Northern Oceanic Clam) p.10; growth analysis pp.9-13; shell length - weight relationship, fig.10, growth in shell weight, fig.11, p.12; comparison of shell growth in *Tridacna maxima* utilising linear and von-Bertalanffy growth models, fig.12, p.13; maturity studies, relationship of sex type and size, fig.13, p.14; mortality analysis, relationship of sex type and size, fig.13, p.14; relationship between shell weight and body tissue weight, fig.14, relationship between shell length and body weight, fig.15, p.16.]

213. Rantzau, [Cptn] 1873a. Rosa Insel. *Journal, Museum Godeffroy*, Hamburg. **1**(I): Taf.1. [pl.I, following p.295 of H.IV, contains small coloured insert map of Rose after Rantzau's sketch. Shows building among coconut palms.]

214. Rantzau, [Cptn] 1873b. Rosa Insel. *Journal, Museum Godeffroy*, Hamburg. **1**(II): Taf.1. [pl.I, follows plates of H.I, and consisting of details of Apia, and landfalls of Upolu, contains small black and white insert map of Rose after Rantzau's sketch, showing building among coconut palms.]

215. Raulin, G. de. 1944. Rose de Freycinet exploratrice maritime. J.Susse, Paris. 24 pp. [Locating and naming of Rose: "C'est la première manifestation de ce genre dont sera l'objet la passagère clandestine" p.16.]

216. Robson, R.W., 1945. *The Pacific Islands Handbook*. Macmillan, New York. xii + 371 pp. [Rose, a double island and uninhabited, is given as part of American Samoa p.68.]

217. Roggeveen, J., 1838. *Dagverhaal der Ontdekkings-Reis met de Schepen Den Arend, Thienhoven en de Afrikaansche Galei, in de jaren 1721 en 1722...* De Gebroeders Abrahams, Middleburg. [First European sighting of Vuyle Eyland (= Rose) pp.186-187; folded map gives spelling as Vuil Eiland.]

218. Roggeveen, J., 1970. *The journal of Jacob Roggeveen*. Clarendon, Oxford. x + 193 pp. (A. Sharp, ed.). [Sighting and naming of Vuyle Island, 8 June 1722, pp.149-150. Sharp, in footnote, gives identity with Rose and translates 'Vuyle' as 'Foul', the island being beset by foul ground p.150.]

219. Romanek, C.S., D.S. Jones & D.F. Williams, 1985. Stable isotope variations in Pacific giant clams record seasonal cycles and reflect influence of photosymbionts. *Eos, Transactions, American Geophysical Union* **66**(46): 917 (Item O21A-04. [Abstract similar to that below with slightly different content *cf.* Jones *et al.*, (1986).]

220. Romanek, C.S., D.S. Jones, D.F. Williams, D.E. Krantz & R.L. Radtke, 1985. Paleobiological implications of stable isotope records from the giant clam, *Tridacna maxima*. *Abstracts with Programs 1985 - Geological Society of America* **17**(7): 702. [Samples from Rose analysed serially from shell margin to umbo giving ontogenetic sequence of C^{12}/C^{13} data. Compared with *Terebra areolata*. See Jones *et al.*, (1986) and Romanek *et al.*, (1987).]

221. Romanek, C.S., D.S. Jones, D.F. Williams, D.E. Krantz & R. Radtke, 1987. Stable isotope investigation of physiological and environmental changes recorded in shell carbonate from the giant clam *Tridacna maxima*. *Marine Biology* **94**(3): 385-394. [O^{18}/O^{16} and C^{13}/C^{12} determinations of *Tridacna* from Rose combined with growth increment studies, give record of physiological and environmental changes during life including seasonal water temperatures. Results contrasted with *Terebra areolata*. Includes photos.]

222. Rose Island. 1920. *O Le Fa'atonu* **18**(7): 4. [Brief account of Governor Tehune's second visit to Rose with A.G. Mayor. Includes description of atoll taken from report by Mayor *cf.* Dunstrey (1920). Not sighted.]

223. *Rose Atoll, National Wildlife Refuge, American Samoa*. n.d. Brochure, USDI, FWS. [In English and Samoan. Includes physical description, history, a brief account of the wildlife, and management and public use policies.]

224. *Rose Atoll Trip 1-87 (February 12-16, 1987)*.1987. Memorandum to Refuge Manager, USFish and Wildlife Service, Honolulu, HI. 7 pp., 1 fig. [Unpublished memorandum. Teachers from Department of Education, American Samoan Government, taken to Rose for educational workshop. Coral survey results indicated there were no adverse impacts on coral communities from hurricane Tusi. *Tridacna* p.3; otoliths

taken from *Ctenochaetus striatus, Lutjanus kasmira, L. gibbus, Aprion virescens, Caranx lugubris*, p.4; *Decapterus sp.*, dark phase of *Forcipinger longirostris*, and *Hemitaurichthys thomsoni* seen (rare on Tutuila) p.5; *Pocillopora, Pavona* and encrusting *Montipora* p.5; untitled map showing transect locations p.7]

225. Rowland, C.M., 1989. *Spring survey of Rose Atoll, March 13-20, 1989*. Administrative Report, US Fish and Wildlife Service, Hawaiian and Pacific Islands National Wildlife Refuge Complex. 12 pp. [Unpublished report. *Pisonia* die-back noted on earlier trips observed p.2; signs of rats preying on bird eggs observed p.9, *Pisonia* pp.3-5,10, coconut palm p.4, *Phaethon rubricauda* (Red-tailed Tropicbird) p.5, *Sula dactylatra* (Masked Booby) p.5, *S. leucogaster* (Brown Booby) pp.3,6, *S. sula* (Red-footed Booby) pp. 6,10, *Fregata ariel* (Lesser Frigatebird) p.6, *F. minor* (Great Frigatebird) p.6, *Sterna fuscata* (Sooty Tern) p.7, *Anous stolidus* (Brown Noddy) p.7, *Anous minutus* (Black Noddy) p.7, *Gygis alba* (White Tern) p.7, *Pluvialis dominica* (Lesser Golden Plover) p.8, *Numenius tahitiensis* (Bristle-thighed Curlew) p.8, *Heteroscelus incanus* (Wandering Tattler) p.8, *Arenaria interpres* (Ruddy Turnstone) p.8, rats (94 trapped in two nights) p.9, turtle track and pit locations on Rose, fig.1, p.12.]

226. Royal New Zealand Air Force. Directorate of Meteorological Services. 1943. The climate of Pukapuka - Danger Islands. **In** Climatological notes: South Pacific Region. *New Zealand Meteorological Office Series C* no.3: 8 pp. [Cited by Sachet (1954) as providing meteorological data from an island within 5° of Rose which lacks any meteorological records of its own, cf. "The climate of Niue", *ibid* no.6: 8p.]

227. Sachet, M.H., 1954. A summary of information on Rose Atoll (Samoa Islands). *Atoll Research Bulletin* **29**: 1-25. [Careful and detailed compilation of literature available to time of writing, and some unpublished information ex E.H. Bryan and L.P. Schultz (q.v.). Geography pp.1-2. History, including translations of early visitors' accounts, pp.2-6. Meteorology with some tabular compilations, mainly ex-*Naval Air Pilot H.O. 272* and Royal New Zealand Airforce (q.v.), pp.6-8,9. Geology with description of reef, scattered limestone boulders, reef conglomerate and coquina, confirmation that volcanic blocks of olivine basalt have been found, pp.8,10-12. Pedology with composite soil profile, analyses pp.12-15 and occurrence of *Azotobacter* pp.15,16. Marine flora: *Caulerpa* p.20, *Lithothamnion* [*sic*] pp.8,21. Marine fauna: *Porolithon* pp.8,10, *Acropora, Pocilliopora* pp.10,11, *Favites, Porites, Symphallia, Tridacna, Echini, Cidaris* p.11. Land flora, including specimen records of US National Museum and B.P. Bishop Museum, pp.2-3,15-18: *Portulaca lutea* pp.15,16,17,20, *Pisonia grandis* pp.11,12,14,15,16,17,18,19,20,21, (= *Calpidia ovatifolia*?) p.15, *Boerhavia tetrandra* pp.15,17,20,21, coconuts and their history p.16, lichen pp.16,18. Land fauna pp.18-21. Birds include records of skins in US National Museum: *Sula leucogaster plotus, Demigretta sacra, Anous stolidus pileatus, Heteroscelus incanus* p.19, and records of other birds *Sula sula rubripes, Sula dactylatra personata* (ex unpublished notes of L.P. Schultz), *Fregata minor, Phaethon lepturus, Sterna fuscata, Gygis alba, Numenius tahitiensis* p.19. *Rattus exulans, Lepidodactylus lugubris, Chelonia tenuis* = *Ch. mydas, Ch. imbricata*, sphinx moth larva (*Celerio*), gnats, flies, moths, crickets, ants, beetles, scale insect (*Coccus ?hesperidum*) p.20, *Laelaps hawaiiensis, L. echididus*, hermit crabs, earthworm p.21. Incomplete bibliography used in present compilation.]

228. Sachet, M-H., 1955. Pumice and other extraneous volcanic material on coral atolls. *Atoll Research Bulletin* **37**: 1-27. [Basalt on Rose reported by US Exploring Expedition and Schultz (1940) discussed pp.15-16 *cf.* Couthouy (1842), Wilkes (1845a), Dana (1849), Pickering (1876), Mayor (1924a,b). Speculates that pumice may have provided source of high aluminium content in Rose soil reported by Lipman & Shelly (1924) p.19.]

229. Sachet, M-H. & F.R. Fosberg, 1955. Island bibliographies. Micronesian botany, land environment and ecology of coral atolls, vegetation of tropical Pacific islands. *National Academy of Sciences - National Research Publication* **335**: 577 pp. [Used in present compilation.]

230. Sachet, M-H. & F.R. Fosberg, 1971. *Island bibliographies supplement. Micronesian botany, land environment and ecology of atolls, vegetation of tropical Pacific islands*. National Academy of Sciences, Washington. 427 pp. [Used in present compilation.]

231. Schmittmann, J., 1944. [Given as such by Pereria (1983). See Stearns (1944).]

232. Schultz, L.P., 1940. The Navy surveying expedition to the Phoenix and Samoan Islands. *Smithsonian Institution Exploration and Fieldwork in 1939*: 45-50. [Includes report of 11 day visit to Rose. Noted boobies and frigates nesting in *Pisonia* with sooty terns below, broken coral heads dotted over the fringing reef; collected "over a hundred kinds of fishes, besides...specimens of lava rock, corals, mollusks, invertebrates, and several birds" p.48.]

233. Schultz. L.P., 1943. Fishes of the Phoenix and Samoan Islands collected in 1939 during the expedition of the USS. "Bushnell". *United States National Museum Bulletin* **180**: x + 316 pp. [Introduction describes visit to Rose, 9-21 June 1939. Similar content to above including general appearance, tide pools exposed on reef, degrading and aggrading shore line, scattered broken niggerheads, *Pisonia* grove p.3. Fish species recorded from Rose: *Leiuramus semicinctus* pp.14-15, *Echidna nebulosa* pp.21-22, *E.leucitaenia* n.sp. pp.22-23, *Uroptergius allardicei, U. leucurus, U. polyspilus* p.30, *U. xanthopterus* p.31, *Gymnothorax buriensis* p.40, *G. monostigma* pp.40-41, *G. schismatorhynchus, G. javanicus* p.41, *G. picta, G. petelli* p.42, *G.*

margaritophorus, G. gracilicauda p.43, *Conger cinerusu* p.44, *Moringua bicolor* p.47, *M. macrocephala, M. abbreviata* p.48, *Muraenichthys laticaudata, Synodus variegatus, Saurida gracilis* p.53, *Belone platyura* p.54, *Odontorhampus chancellori* p.56, *Bothus mancus* p.59, *Myripristis murdjan* p.62, *M. murdjan* pp.62-63, *M. berndti* p.63, *Holocentrus opercularis, H. sammara* p.67, *H. spinifer, H. laeteo-guttatus* p.68, *H. microstomus* p.69, *Fistularia petimba* p.77, *Atherina uisila* p.78, *Sphyraena snodgrassi, S. helleri* p.83, *Trachurops crumenophthalmus* p.86, *Caranx ferdu* p.87, *C. adscensiois* p.88, *Apogon novemfasciata* p.95, *A. doryssa* p.96, *Kuhlia taeniura* p.104, *Eponephelus socialis, Cephalopholis argus* p.108, *C. urodelus* p.109, *Grammistes sexlineatus* p.110, *Aprops bilnearis* n.gen., n.sp. pp.112-114, *Pseudogramma polycanthus* pp.114-115, *Pseudochromis jamesi* n.sp. pp.116-117, *Pseudolesiops rosae* n.sp. pp.117-119, *Lutianus monostigma* pp.120-121, *L. kasmira* p.121, *Monotaxis grandoculis* p.122, *Gnathodentex aureolineatus* p.123, *Mulloidichthys auriflamma* p.129, *Parupeneus bifasciatus, P. trifasciatus* p.130, *Amblycirrhitus arcatus* p.132, *Paracirrhites bimacula* p.134, *Cirrhitus pinnualtus* p.137, *Chaetodon reticulatus, C. unimaculatus, C. auriga* p.150, *C. lunula* p.151, *C. vagabundus, C. quadrimaculatus, C. ephippium, C. citrinellus* p.152, *C. rafflesii, C. pelewensis* p.153, *Pomocanthus imperator, Pygoplites dicanthus* p.154, *Centropyge flavissimus, Zanclus cornutus* p.155, *Ctenochaetus strigosus* p.161, *Acabthurus glaucopareius* pp.161-162, *A. achilles* p.162, *A. triostegus* pp.162-163, *A. elongatus* pp.165-166, *A. olivaceus* p.166, *Naso lituratus, N. unicornis* p.167, *Pterois volitans, P. radiata* p.172, *Scorpaenopsis alborunneus, Taenianotus tricanthus* p.174, *Caracanthus unipinna, C. maculatus* p.175, *Dascyllus aruanus, Chromis caerleus* p.183, *Abudefduf sordidus* pp.186-187, *A. glaucus* p.187, *A. taupou* pp.188-189, *A. phoenixensis* n.sp. pp.190-192, *A. dickii* pp.192-193, *A. imparipennis* p.193, *Gomphosus varius* p.197, *Pseudocheilinus hexataenis* p.200, *Thalassoma umbrostigma, T. quinquevittata* p.206, *T. purpureum* p.207, *Halichoeres trimaculatus, H. centriquadrus* p.211, *Coris angulata* p.217, *Scarus jonesi, S. purpureus* p.219, *S. erythacus* p.221, *Gubidon riulatus* p.230, *Zonogobius semidoliatus* p.238, *Trimma caesiura* p.250, *T. eriotops* n.sp. pp.250-251, *Eviota epiphanes* p.255, *Dermosteira dorotheae* n.sp. pp.267-268, *Parapercis tetracanthus* p.269, *Blennius rhabdotrachelus* p.270, *Cirripectus leopardus* p.273, *C. variolasus* p.275, *Salarias endentulus* p.282, *S. marmoratus* p.283, *S. periophthalmus* p.284, *Enneapterygius hudsoni, E. hemimelas* p.286, *Dinematichthys iluocoeteoides* pp.287-288, *Balistes rectangulus* p.292, *Centherines sandwichiensis* p.293, *Ostracion lentiginosum, Tetraodon nigropunctatus* p.294, *Canthigaster bennetti, C. solandri, C. amboinensis, Diodon hystrix* p.295. Index.]

234. Scott, J.M., R. Pyle & R. Coleman, 1983. Records of small white egrets in Hawaii and Samoa with notes on identification. *'Elepaio* **43**(10): 79-82. [Report of two sightings of Snowy (*Egretta thula*) or Little (*E. garzetta*) Egret on Rose p.81.]

235. Sekora, P.C., 1974. *Trip report, Rose Atoll National Wildlife Refuge, November 21-24, 1974.* US Fish and Wildlife Service, Kailua, Hawaii. 5 pp. [Unpublished report. Turtle pits on Sand Island (173) and on Rose Island (135); six hatchlings were emerging from nests, two being attacked by rats. *Chelonia mydas* (Green Turtle), *Eretmochelys imbricata* (Hawksbill Turtle) pp.1-2, Fairy Tern, Golden Plover, Ruddy Turnstone, Bristle-thighed Curlew, Reef Heron p.1.]

236. Sekora, P.C., 1976. *Trip report, Rose Atoll National Wildlife Refuge, October 19-22, 1976* US Fish and Wildlife Service, Kailua, Hawaii. 8 pp. [Unpublished report.]

237. Setchell, W.A., 1924. American Samoa. Part III. Vegetation of Rose Atoll. *Carnegie Institution of Washington Publication* **341**: 225-261. (= *Papers from Department of Marine Biology, Carnegie Institution of Washington* **20**: 225-261.) [Excellent summaries of location and geographical setting p.227, history of charting and descriptions of Freycinet, Kotzebue, Dumont D'Urville, US Exploring Expedition, Rantzau and Mayor (with historical maps) and commentaries of Couthouy ("fanciful account"), Darwin, Gray, Bailey and Harvey, and Graeffe pp.227-235; geology p.235, pl.36; soil, with analyses and including nitrifying bacteria *Azotobacter*, pp.235-236; climate pp.236-237; fauna including *Favites, Porites, Symphyllia, Pocillopora,* and *Acropora* p.235, and particularly pp.237-238: *Anous* and *Sula* (*cf.* pl.32B), Polynesian rat, *Lepidodactylus lugubris, Chelonia mydas, Ch. imbricata*, sphinx moth (*Celerio*), "a few gnats and an occasional fly which may have come with the visitors"; terrestrial and marine flora pp.228-232, 234-235, 238 ff., with detailed descriptions of *Cocos nucifera* and its introduction (p.247 *cf.* pp.232-233), *Pisonia grandis* (pp.247-249, pls 12A,B, 33A, 35B), *Boerhaavia tetrandra* (p.249, pls 32B, 33B, 34A,B), *Portulaca lutea* (pp.250-251, pls 32B, 34C, 35A) with discussion of Rose being probable provenance of Gray's (1854) US Exploring Expedition specimen, *Porolithon craspedium* f. *mayorii* n.f. (pp.251-253, pls 36, 37) with chemical analysis p.253, *Lophosiphonia* 2 spp., *Laurencia* sp., *Gelidium* sp. (p.254), *Caulerpa cupressoides* var. *mammillosa* (p.255), *Ostrebium reinecki, Micodictyon umbilicatum, Gomontia* sp. (p.256), *Micochaete vitensis* (pp.256-257), *Microcoleus ternerrimus, Plectonema terebrans, Spirulina subsalsa* (p.257), *Hyella caespitosa* (pp.257-258), *Pleurocapsa mayorii* n.sp. (pp.258-259). Index. Samoan plant names pp.272-275]

238. Shallenberger, R., 1980. *Trip report, Rose Atoll National Wildlife Refuge November 10-13, 1980.* US Fish and Wildlife Service, Hawaiian and Pacific Islands National Wildlife Refuge. 20 pp. [A report on activities and species accounts. Itinerary p.3, vegetation and bird survey methods p.4, rat predation on bird eggs p.11, 22 rats shot and gastrointestinal tracts pickled for stomach

analysis p.15, *Pisonia* pp.3,4,7-18, *Messerschmidia* pp.3,4,7-18, *Boerhavia* pp.7,11, *Phaethon rubricauda* (Red-tailed Tropicbird) pp.3,7, *P. lepturus* (White-tailed Tropicbird), *Sula dactylatra* (Masked Booby) pp.4,7, *S. leucogaster* (Brown Booby) pp.4,7, *S. sula* (Red-footed Booby) p.8, *Fregata minor* (Great Frigatebird) p.8, *F. ariel* (Lesser Frigatebird) p.9, *Egretta sacra* (Reef Heron) p.9, *Leucophoyx thula* (Snowy Egret) suspected but not positively identified p.9, *Gygis alba* (White Tern) pp.3,13,16, *Sterna lunata* (Gray-backed Tern) p.11, *S. fuscata* (Sooty Tern) pp.11,16, *Anous stolidus* (Brown Noddy) p.12, *A. minutus* (Black Noddy) pp.3,12,16, *Pluvialis dominica* (Golden Plover) pp.10, *Numenius tahitiensis* (Bristle-thighed Curlew) p.10, *Heteroscelus incanus* (Wandering Tattler) p.10, *Arenaria interpres* (Ruddy Turnstone) p.10, *Urodynamis taitensis* (Long-tailed Cuckoo) p.14, *Foulehaio carunculata* (Wattled Honeyeater) p.14, *Procelsterna cerulea* (Blue-gray Noddy) p.14, *Puffinus lherminieri* (Audubon Shearwater) p.14, *P. pacificus* (Wedge-tailed Shearwater) p.14, *P. tenuirostris* (Slender-billed Shearwater) p.14, *Pterodroma* sp. p.14, *Stenella* sp. (porpoise) p.15, *Globiocephala meleana* (Pilot Whale) p.15, *Rattus exulans* (Polynesian Rat) pp.3,15,20, *Chelonia mydas* (Green Turtle) p.17, *Gehyra oceanica* (Polynesian Gecko) p.17, *Lepidodactylus lugubris* (Mourning Gecko) p.17, Hermit Crab p.18, coconut palms p.18, unlabelled map showing transect locations p.5, unlabelled map showing location of botanical markers, fig.1, p.6.]

239. Sharp, A., 1960. *The discovery of the Pacific Islands*. Clarendon, Oxford. ix + 259 pp, maps. [Discovery of Rose as Vuyle Eyland (Bird Island) by Roggeveen, 13 June 1722 p.99 but *cf.* Roggeveen (1838).]

240. Ship Inez, 1847. *Boston Journal* 4 February 1847, **15**: 2. [Ship *Inez* reported as having grounded on Middleton/Rose Island reef, lat 59°25'N on 22 July 1846; *cf.* Memoranda (1846). Reprinted in Ward (1967, **4**: 534.)]

241. Smith, W. [?1841] *Voyages autour du monde et dans les contrées les plus curieuses du globe depuis Christophe Colomb jusqu'a nos jours*. Société Bibliophile, Paris. 6 vols. [Locating of Rose by Freycinet with brief description **6**: 291.]

242. *South Pacific Handbook*. (D. Stanley, ed.) 1982. 2nd edn. Moon Publications, Chico, California. 566 pp. [Rose mentioned as part of American Samoa p.153, and declared a wildlife refuge to protect the turtles and seabirds which nest there p.163.]

243. Sparhawk, W.N., [1944]. *Notes on forests and trees of the central and southwest Pacific area*. Forest Service, US Department of Agriculture, Washington. 78 pp. Mimeographed. [Rose mentioned as having only *Pisonia grandis* as sole native tree, and not being of volcanic origin p.4.]

244. Spate, O.H.K., 1983. *The Pacific since Magellan. II. Monopolists and freebooters*. Australian National University Press, Canberra. xxi + 426 pp. [Roggeveen's discovery of "Vuyle Eylandt", "named for its foul ground", on 13 June 1722, p.226. Its identity with Rose is not spelled out entirely unambiguously.]

245. Stanton, W., 1975. *The great United States Exploring Expedition of 1838-1842*. University of California Press, Berkely, California. x + 433 pp. [Notes that *Porpoise* was to rendezvous with rest of expedition at Rose Island in Navigator Group after completing survey of Kruzenstern's Island p.130, and that *Vincennes* met with *Porpoise* at Rose in early October, the *Porpoise* arriving first p.132.]

246. Stapelton, E., 1982. Rose de Freycinet - stowaway world traveller. *Spotlight on History* (St Mary's Historical Society) **7**: 1-75. [Précis of Bassett's (1962) book. Discovery and naming of Rose Island p.43.]

247. Stearns, H.T., 1944. Geology of the Samoan Islands. *Bulletin, Geological Society of America* **55**(11): 1279-1332, 8 pls, 16 fig. [General locality map and frugal geographical statistics p.1281. Mayor's visit p.1283. Three line summary of Mayor's description p.1318 and see bottom paragraph p.1330.]

248. Stickney, E.H., 1943. Birds collected during the Whitney South Sea Expedition. 53. Northern shore birds in the Pacific. *American Museum Novitates* 1248: 1-9. [Specimens from Rose include *Pluvialis dominica fulva*, Pacific Golden Plover p.4, *Numenius tahitiensis*, Bristle-thighed curlew p.4, *Heteroscleus incanus incanus*, American Wandering Tattler p.7, *Arenaria interpres interpres*, Turnstone p.8.]

249. Stoddart, D.R., 1969. Ecology and morphology of recent coral reefs. *Biological Reviews* **44**: 433-498. [Reef blocks on Rose "appear to indicate former higher sea levels" p.472.]

250. Stone, E.L., 1951. The soils of Arno Atoll, Marshall Islands. *Atoll Research Bulletin* **5**: iv + 56 pp., 1 fig, 7 maps. [Brief mention of Lithothamnion soils of Rose (Mayor, 1924b) p.8, development of phosphatic horizons (Lipman & Shelley, 1924) and confirmation of presence of basalt by Schultz (1940) p.10.]

251. Strauss, W.P., 1963. *Americans in Polynesia 1783-1842*. East Lansing, Michigan State University Press, [viii] + 187 pp. [US Exploring Expedition vessels rendezvous at Rose p.126.]

252. Swaney, D., 1990. *Samoa: Western & American Samoa*. Lonely Planet Publications, Hawthorn, Vic., Berkley, Ca. 176 pp. [Maps pp.9, 163; access to Rose restricted by US Fish. & Wildlife Service as nesting grounds for numerous seabirds, Rose described as the result of coral polyps that have colonised the remains of a volcano no longer visible above the sea p.15;

"Geologically, the atoll was probably once a shield volcano, like the Manu'as, that has completely eroded away since the Pleistocene Era" p.163; Rose noted as wildlife refuge for black turtle, hawksbill turtle, sooty terns, other terns, tropicbirds, noddies and boobies (85% of the total sea-bird population of American Samoa) p.164.]

253. Swerdloff, S.N., 1973. The status of marine conservation in American Samoa - 1971. *South Pacific Commission Regional Symposium on Conservation of Nature - Reefs and Lagoons: Noumea, New Caledonia,* 5-14 August 1971. Paper 4: 23-27. South Pacific Commission, Noumea. [Rose briefly described and noted as uninhabited for at least 70 years but not "free from human manipulation" p.24.]

254. Swerdloff, S.N. & R.L. Needhan, 1970. *Rose Atoll, a survey, August 1, 1970.* Office of Marine and Wildlife Resources, Government of American Samoa, Pago Pago. 12 pp. [Unpublished Report. Account of a nine hour visit to Rose by a group that included Governor and Mr. John M. Haydon during which collections of several species were made - summary p.1. Report stresses importance of sooty terns to tuna fishing industry, notes over 199 recent turtle pits, and recommends that Rose be designated as a wildlife preserve, that ecosystem studies be carried out, and that access be provided for Samoan science educators and advanced students p.10. *Cocos nucifera, Pisonia grandis, Boerhaavia tetrandra, Portulaca lutea* p.3, *Tournefortia argentea* p.4; mollusks: *Cypraea testudinaria, C. talipa, C. caputserpentis, C. isabella* p.4; *Cypraea moneta, C. erosa, C. arabica depressa, C. arabica historio, C. poraria, C. helvorla, C. carneola, C. ventriculus, C. lynx, Conus pulicarius, C. ebraeus, C. tulipa, C. lividus, C. aulicus* (?), *Terebra crenulata, T. maculata, T. subulata, T. dimidiata, T. guttata, Tonna perdix, Malea pomum, Nassarius papillosus, Drupa nodus, Thais hipposcastanum* (?), *Mitra litterata, M. imperialis, Nerita polita, N. plicata, Turbo* sp., *Strombus lentiginosus, Cheilea* sp., *Hippopus hippopus, Tridacna* sp. p.5; echinoderms: one unidentified holothurian photographed, *Heterocentrotus mamillatus* (heart urchin) p.6; arthropods: *Stenopus hispidus, Panulairus* sp., *Grapsus prapsus, Dardanus* sp., *Coenobita* sp., house fly, fruit fly, small ants, two species of arachnids, *Chelonia mydas* p.6; a small brown rat p.7; *Phaethon rubicauda, Sula dactylatra personata, S. leucogaster, S. sula rubipes* p.7; *Fregata minor, Demiegratta sacra* (white phase), *Arenaria interpres, Heteroscelus incanus* p.8; *Sterna fuscata, Anous stolidus pileatus, A. minutus* p.9; *Gygis alba* p.10.]

255. Tarburton, M.K., 1989. Subspeciation in the Red-tailed Tropicbird. *Notornis* **36**: 39-49. [Measurements from Rose population included in table 1 p.40]

256. Tate, G.H.H., 1935. Rodents of the genera *Rattus* and *Mus* from the Pacific Islands, collected by the Whitney South Sea Expedition, with a discussion of the origin and races of the Pacific island rat. *Bulletin, American Museum of Natural History* **68**: 145-178. [*Rattus exulans* specimens from Rose with measurements pp.151,155,170,174. Notes Rose Polynesian rats are larger than from Malekula (= Vanuatu) p.159.]

257. Taylor, C.R.H., 1951. *A Pacific bibliography: printed matter relating to the native peoples of Polynesia, Melanesia and Micronesia.* The Polynesian Society, Wellington. 492 pp. 2nd edn, 1965, Clarendon, Oxford. xxx + 692 pp., map. [Samoa, 2nd edn, pp.267-286, used in present compilation.]

258. Te Rangi Hiroa (Peter H. Buck), 1953. Explorers of the Pacific: European and American discoveries in Polynesia. *Bernice P. Bishop Museum Special Publication* **43**: viii + 125 pp. [Rose pp.79 (Kotzebue), 80 and 81 (Freycinet), 88 and 89 (Durmont d'Urville), 107 (Wilkes).]

259. The Stars and Stripes in the Central Pacific. 1938. *Honolulu Star Bulletin,* 3 September 1938. [See Bryan (1974).]

260. Thompson, J.A., 1921. The geology of Western Samoa. *New Zealand Journal of Science and Technology.* **4**: 49-66. [Passing reference to Rose being part of Samoan group p.49.]

261. Thompson, R.M., 1983. Bibliography of geology and geophysics of Samoa. **In** C. Jouannic & R-M. Thompson (eds). Bibliography of geology and geophysics of the south-western Pacific. *United Nations Economic and Social Commission for Asia and the Pacific, Committee for Co-ordination of Joint Prospecting for Mineral Resources in the South Pacific Offshore Areas (CCOP/ SOPAC) Technical Bulletin* **5**: 150-155. [Update of Bardsley (1975). Used in present compilation.]

262. Todd, I., 1974. *Island realm: a Pacific panorama.* Angus & Robertson, Sydney. 214 pp. [Exotic description of Rose with reference to abundant fish and sea birds, "giant turtles", numerous rats, "huge land crabs" and declaration of island as a fauna, flora and marine reserve by Governor in 1971 p.75.]

263. Tyler, D.B., 1968. *The Wilkes Expedition. The first United States Exploring Expedition (1838-1842).* Philadelphia, The American Philosophical Society, xviii + 435 pp. [Mentions rendezvous of *Vincennes* and *Porpoise* of Rose p.108.]

264. United Nations Environment Programme: International Union for Conservation of Nature and Natural Resources, 1988. *Coral Reefs of the World. Volume 3: Central and Western Pacific.* UNEP Regional Seas Directories and Bibliographies. IUCN, Gland, Switzerland & Cambridge, UK/UNEP, Nairobi, Kenya. xlix + 329 pp., 30 maps. [Concise, comprehensive summary of Rose giving geographical location, size, land tenure, physical features p.11; reef structure and corals

(*Acropora*) pp.11-12; noteworthy flora and fauna (*Pisonia, Eretmochelys imbricata, Chelonia mydas, Fregata minor, F. ariel, Sula sula, S. leucogaster, S. dactylatra, Phaethon rubricauda, Gygis alba, Sterna fuscata, Anous stolidus, A. minutus, Egretta gularis,* shore birds, 200 species of fish, *Tridacna maxima*), scientific importance and research, economic value and social benefits, disturbance and deficiencies (*Cocos nucifera, Rattus exulans,* Hurricane Tsui of 1987), legal protection and National Wildlife Refuge status, management, recommendations p.12. Elsewhere Rose is mentioned in tabular compilations e.g. p.xxxix, and throughout introductory section on American Samoa e.g., pp.1,4,5,6. Referenced.]

265. United States of America, Department of Commerce. Coast and Geodetic Survey. 1929. America Samoa. United States Possessions in Samoa Islands, South Pacific Ocean. Chart 4190. *Samoa Islands. United States Possessions in Samoa Islands.* [Also 1948 edn; neither sighted.]

266. United States of America, Department of the Interior. Office of Geography. 1957. *Gazetteer* No.39. *South Pacific.* Central Intelligence Agency, Washington. iv + 68 pp. [Rose Island: lat 14°32'S, long 168°08'W; Rose Island District: 14°32'S, long 168°12'W, defined p.45.]

267. United States of America, Department of the Interior. Land Management Bureau. 1953. *Map of United States, including territories and insular possessions ... American Samoa.* [Two sheets. Insert Rose Island. Not sighted.]

268. United States of America, Fish and Wildlife Service. 1974. *Rose Atoll National Wildlife Refuge, American Samoa.* Federal Register 39(71-76). [The Government of American Samoa and the US Fish and Wildlife Service, through a cooperative agreement dated July 5, 1973, established the Rose Atoll National Wildlife Refuge. Boundaries defined as "the extreme low waterline outside the perimeter reef except at the entrance channel where the boundary is a line extended between the extreme low waterlines on each side of the entrance channel".]

269. United States of America, National Archives, Washington. 1944. In *Records of the United States Exploring Expedition under the command of Lieutenant Charles Wilkes, 1838-1842.* File Microcopies of Records No. 75. Rolls 7, 10, 13, 17. [Sighting and landing on Rose, 6 October 1839 recorded. See Wilkes (1944), Anonymous Journal (1944), Briskoe (1944), Elliot (1944).]

270. United States of America, Navy Department. Hydrographic Office. 1923. *Island of Tutuila, Samoa Islands. South Pacific Ocean.* Chart 2924. Scale: 1 nautical mile = 1.9 in. [Insert Rose Island. Not sighted.]

271. United States of America, Navy Department. Hydrographic Office. 1943. *Weather summary for Naval Air Pilot. Southwest Pacific, Fiji and Samoa Area.* H.O. 272: 1-140, Washington. [Not sighted.]

272. United States of America, Navy Department. Hydrographic Office. 1944. Gazetteer (No.7) Islands of the Central and South Pacific. (New Caledonia to Sala y Gomez, Latitude 15°N to Latitude 60°S.) H.O. Pub. No. 887. (Reprint November 1944 of H.O. Misc. No. 10,887). United States Government Printing Office, Washington. 1 map. ["Rose I Islet [Lat] 14°33'S [Long] 168°08'W" p.146.]

273. United States of America. Hydrographic Office. 1952 (6th ed). *Sailing Directions for the Pacific Islands.* **3.** *Eastern Groups.* H.O. Publication 166 [*sic*]. [Subsequently H.O. Publication 80. Location, general description, boat channel and tidal currents of Rose include a statement that atoll/island is a US Naval Defensive Area and Airspace Reservation and is closed to the public pp. 163-164. This latter information is not present in revisions: Change 9, p.163, 18 June 1966, and Change 12, 11 July 1970. Map included Change 12, p.162a.]

274. Verne, J., 1881. *Celebrated travels and travellers. Great explorers of the nineteenth century.* (Translated N. D'Anvers.) Sampson, Low, Marston, Searle & Rivington, London. xv + 378 pp. [Locating and naming of Rose by Freycinet p.242.]

275. Viola, H.J. & C. Margolis, (eds). 1985. *Magnificent voyagers: The US Exploring Expedition, 1838-1842.* Smithsonian Institution, Washington. 304 pp. [Visit to Rose, 7 October 1839, p.259.]

276. Walker, E.H., 1947. A subject index to Elmer D. Merrill's "A botanical bibliography of the islands of the Pacific." *Contributions from United States National Herbarium* **30**(1): 323-404. [Used in present compilation. See Merrill (1947).]

277. Ward, R.G. (ed.), 1967. *American activities in the central Pacific 1790-1870.* **4**: xiii + 695 pp.; **6**: xi + 572 pp. Gregg Press, Ridgewood, N.J. [Wreck of *Inez* (Memoranda, 1846) and *Good Templar* (A Schooner Lost, 1869) on Rose, **4**: 532-534, **6**: 317.]

278. Wass, R.C., 1984. An annotated checklist of the fishes of Samoa. *National Oceanic and Atmospheric Administration (NOAA) Technical Report, Special Scientific Report-Fisheries* SSRF-**781**: 43 pp. [Rose as part of Samoa "has no basaltic substrate or freshwater runoff p.1. Occasional references to Rose in checklist e.g. *Scarus atropectoralis* p.23. Extensive reference list.]

279. Wass, R.C., 1987. Rose Atoll National Wildlife Refuge Public Use Policy. US Fish and Wildlife Service Circular. Honolulu, Hawaii. 2 pp. [Lists general policies and those specific to marine awareness for American Samoa Department of Education teachers. Stresses

biological sensitivity of the refuge.]

280. Wass, R.C. n.d. *a. The fishes of Rose Atoll.* Office of Marine and Wildlife Resources, Government of American Samoa, Pago Pago. 10 pp. [Unpublished Report. Report from a 1980 reef fish survey for four habitat types at Rose. Total of 120 species sighted p.1; noted low number of damselfish species and biomass compared to Tutuila p.4; fish community observation sites at Rose Atoll, fig.1 p.6; fishes observed in four lagoon habitats at Rose Atoll: *Carcharhinus melanopterus, C. amblyrhynchos, Triaenodon obesus, Spratelloides sp., Saurida gracilis,* Belonidae, *Adioryx spinifer, A. microstomus, Myripristis berndti, Flammeo sammara, Epinephelus merra, Cephalopholis argus, C. urodelus, Cheilodipterus quinquelineatus, Caranx melampygus, C. lugubris, Pterocaesio tile, P. kohleri, Aphareus furcatus, Aprion virescens, Lutjanus bohar, L. gibbus, L. monostigmus, L. fulvus, L. kasmira, Monotaxis grandoculis, Gnathodentex aureolineatus, Lethrinus rubrioperculatus, Mulloidichthys flavolineatus, M. vanicolensis, Parupeneus pleurostigma, P. cryserydros, P. bifasciatus, P. barberinus, P. trifasciatus, Forcipinger flavissimus, Chaetodon reticulatus, C. ephippium, C. auriga, C. unimaculatus, C. lunula, C. trifasciatus, C. quadrimaculatus, C. citrinellus, C. vagabundus, C. pelewensis, C. ulietensis, C. trifascialis, Centropyge flavissimus, C. heraldi, C. bispinosus, Pygoplites diacanthus, Dascyllus aruanus, D. reticulatus, Plectroglyphidodon dickii, Pomacentrus vaiuli, Chromis margaritifer, C. caerulea, C. iomelas, Glyphidodontops cyaneus, Acanthurus achilles, A. glaucopareius, A. nigrofuscus, A. thompsoni, A. olivaceus, A. pyroferus, A. mata, Ctenochaetus strigosus, C. striatus, Zebrasoma veliferum, Z. scopas, Naso lituratus, N. unicornis, N. vlamingii, Zanclus cornutus, Rhinecanthus aculeatus, Melichthys vidua, Sufflamen bursa, Sufflamen chrysoptera, Balistapus undulatus, Pseudobalistes flavomarginatus, Ostracion meleagris, Canthigaster solandri, Diodon hystrix* - table 1. pp.7-10.]

281 Wass, R.C. n.d. *b. The fishes of Rose Atoll - Supplement I.* Office of Marine and Wildlife Resources, Government of American Samoa, Pago Pago. 11 pp. [Unpublished Report. Results of a 1982 survey which concentrated on the reef front habitat, the dominant habitat outside the lagoon. Species diversity lower at Rose reef front habitat than observed at Tutuila p.3; six species added to the list of lagoon fishes from the original study (above): *Adioryx tiere, Flammeo opercularis, Carangoides ferdau, Chaetodon flavirostris, C. lineolatus, Scarus atropectoralis* p.4; five fish from Rose have not been observed or recorded elsewhere in Samoa: *Chaetodon flavirostris, Bodianus anthioides, Cirrhilabrus* sp., *Scarus atropectoralis, Zebrasoma rostratum* p.4; Scuba dive and tow location from which fishes of the reef front habitat were observed at Rose Atoll, fig.1, p.5; fishes observed within the reef front habitat at Rose Atoll: *Carcharhinus amblyrhynchos, C. melanopterus, Triaenodon obesus Chanos chanos, Adioryx spinifer, A. tiere, Flammeo opercularis, Myripristis, berndti, M. vittatus, Caracanthus maculatus, Anthias lori, A. pascalus Cephalopholis guttatus, C. urodelus, Cephalopholis* sp., *Gracila albomarginata, Belonoperca chabanaudi, Caranx ignobilis, C. lugubris, C. melampygus, Scomberoides lysan, Pterocaesio tile, Aphareus furcatus, Aprion virescens, Lutjanus bohar, L. gibbus, L. monostigmus, L. kasmira, Macolor niger, Gnathodentex aureolineatus, Monotaxis, grandoculis, Parupeneus, bifasciatus, P.. chryserydros, P. trifasciatus, Pempheris oualensis, Chaetodon auriga, C. bennetti, C. ephippium, C. lunula, C. ornatissimus, C. pelewensis, C. quadrimaculatus, C. reticulatus, C. unimaculatus, Hemitaurichthys polylepis, H. thompsoni, Heniochus monoceros, Forcipinger flavissimus, F. longirostris, Centropyge flavissimus, C. heraldi, C. loriculis, Pygoplites diacanthus, Amphiprion chrysopterus, Chromis acares, C. agilis, C. iomelas, C. margaritifer, C. xanthura, Dascyllus trimaculatus, Plectroglyphidodon johnstonianus, Neocirrhites armatus, Paracirrhites arcatus, P. forsteri, P. hemistictus, Sphyraena barracuda, S.* sp., *Bodianus anthioides, Cheilinus rhodochrous, Coris aygula, Gomphosus varius, Halichoeres hortulanus, H. melasmapomus, Hemigymnus fasciatus, Labroides bicolor, L. dimidiatus, L. rubrolabiatus, L.* sp., *Pseudocheilinus evanidus, P. hexataenia, Thalassoma lutescens, T. quinquevittatum, Scarus schlegeli, S. sordidus, S. tricolor, Acanthurus achilles, A. glaucoparieus, A. nigroris, A. thompsoni, Ctenochaetus strigosus, C. striatus, Naso brevirostris, N. lituratus, N. hexacanthus, N. vlamingii, Zebrasoma, rostratum, Z. veliferum, Zanclus cornutus, Gymnosarda unicolor, Balistapus undulatus, Balistoides viridescens, Melichthys niger, M. vidua, Canthidermis dumerili, Diodon hystrix* - table 1, pp.6-11.]

282. Wass, R.C. n.d. *c. The Tridacna clams of Rose Atoll.* Office of Marine and Wildlife Resources, American Samoa Government, Pago Pago. 9 pp. [Unpublished report. First survey of the distribution, abundance, density and size-frequency of *Tridacna* at Rose conducted 10-13 November 1980 to address the feasibility of opening the refuge to a giant clam fishery. Only *T. maxima* observed. *Tridacna* clam survey sites at Rose Atoll, fig.1, p.2. In one transect 242 living *Tridacna*, with shell lengths of 11-226 mm, had an average density of 0.28/mm^2. Juveniles were abundant but size classes between 50-99 mm were lacking. About 10% of the *Tridacna* were dead. Similar data from other transects given along with recommendations for resource management.]

283. Wass, R.C., n.d. *d.* The *Tridacna* clams of Rose Atoll. Supplement 1. Unpublished Report. [Not sighted.]

284. *Weekly News Bulletin* [Pago]. 21 Feb 1953. [Rose island fishing survey. Not sighted.]

285. Wegener, G., 1903. *Deutschland im Stillen Ozean.* **In** A. Scobel (ed.). *Land und Leute. Monographien zur Erdkunde.* **15**: 156 pp., map. Velhagen

& Klasing, Bielefeld and Leipzig. [Rose very briefly described as part of Samoan group p.19.]

286. Wiens, H.J., 1962. *Atoll environment and ecology.* Yale University Press, New Haven. 532 pp. [Excellent monographic review but only passing references to Rose: lithothamnium soils p.335, phosphatic soils p.347, and a repeat of Sachet's (1954) translation of Graeffe (1873) concerning turtles *Chelonia mydas* and *Ch. imbricata* pp.423-424.]

287. Wilkes, C., 1844. *Narrative of the United States' exploring expedition during the years 1838, 1839, 1840, 1841, 1842.* C. Sherman, Philadelphia. **2**: xvi + 505 pp., 14 pls, 3 maps. [Official publication of Library Committee of the Library of Congress in limited edition of 100 copies. Rendezvous at Rose 7 October 1839 p.67. Description of reef, islets, lagoon, coral structure, flora and fauna p.68, including "Some boulders of vesicular lava were seen on the coral reef; they were from twenty to two hundred pounds weight." Frigate-birds, boobies (*Sula*) observed nesting in *Pisonia* with noddies and terns on land, the latter in a thicket. A small turtle was taken and eaten. Locality map of whole Samoan group pp.64-65. A better account in Pickering (1876) and see commentary in Sachet (1954, p.4). Wilkes' report consisted of five volumes, separate atlas, followed by scientific volumes 6 to 23 authored by various experts of which 18, 19, 21, 22 never appeared; see Couthouy (1842), Dana (1849), Girard (1858), Pickering (1876) and *cf.* Haskell (1968).]

288. Wilkes, C., 1845a. *Narrative of the United States' exploring expedition during the years 1838, 1839, 1840, 1841, 1842.* Lea & Blanchard, Philadelphia. **2**: xv + 476 pp. [Unofficial edition of 150 copies. Rendezvous at Rose 7 October 1839 p.63. Description of reef, islets, lagoon, coral structure, flora and fauna p.64, including "Some boulders of vesicular lava were seen on the coral reef; they were from twenty to two hundred pounds weight." Frigate-birds, boobies (*Sula*) observed nesting in *Pisonia* with noddies and terns on land, the latter in a thicket. A small turtle was taken and eaten. Locality map of whole Samoan group p.62, of smaller size than in (1844) above. A better account etc., as above.]

289. Wilkes, C., 1845b. *Narrative of the United States' exploring expedition during the years 1838, 1839, 1840, 1841, 1842.* Whittaker & Co., London. Condensed and abridged. vii + 372 pp. [One of many abridged versions of Wilkes (1845a) with Rose account given more or less in full p.87.]

290. Wilkes, C., 1848-1850. *Die Entdeckungs-expedition der Vereinigten Staaten in den Jahren 1838 bis 1842 unter Lieutenant Charles Wilkes. Von ihm selbst beschrieben und nach den Originalausgabe abekürzt übersetzt.* **1**: [i]-[xii], 1-372, **2**: [i]-[x], 1-449. (*Reisen und Länderbeschreibungen der älteren und neuesten Zeit, eine Sammlung ...*, eds E. Widenmann & H. Hauff, **33**: 1-372, **34**: 1-449. Stuttgart & Tübingen, Verlag der J.G. Lotta'schen Buchhandlung.) [Visit to Rose described **1**: 144-145.]

291. Wilkes, C., 1850. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN. Atlas of charts.* **1** *From the surveys of the Expedition.* By the Authority of Congress. 55 unnumbered pls. C. Sherman, Philadelphia. [Charts of Rose Atoll plate 19 (smaller), plate 22 (larger) and landfall plate 22.]

292. Wilkes, C., 1851. *Narrative of the United States' exploring expedition during the years 1838, 1839, 1840, 1841, 1842.* Putnam, New York. **1**: lx + 434 pp., 8 pls; **2**: xv + 476 pp., 14 pls, 3 folded maps. [Another abridged account of Wilkes (1845a) with Rose account given more or less in full **2**: 63-65. Map of Samoa with Rose facing p.63.]

293. Wilkes, C., 1851. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN.* Vol. XI. *Meteorology.* C. Sherman, Philadelphia. lviii + 726 pp., 24 pls. [Track of Peacock shows daily barometer readings and temperatures of air and water during cruise in Samoa group, facing p.734. Not sighted]

294. Wilkes, C., 1852. *Narrative of the United States' exploring expedition during the years 1838, 1839, 1840, 1841, 1842.* Ingram, Cooke & Co., Strand **1**: x + 318 pp. [A two volume abridged version of Wilkes (1845a) with Rose account given as for Wilkes (1845b) p.154-155.]

295. Wilkes, C., 1861. *United States Exploring Expedition. During the years 1838, 1839, 1840, 1841, 1842. Under the command of Charles Wilkes, USN.* Vol. XI. *Hydrography.* C. Sherman, Philadelphia. vi + 514 pp., 5 maps. [Twelve line description of Rose and including its location, birds, trees, fish and coral: "greatest part of it is submerged at high water; and during storms it is with the exception of the small space the trees are growing on, an entire breaker" p.142; location and navigational notes pp.69,123.]

296. Wilkes, C., 1944. *Journal of Lieutenant Charles Wilkes aboard the Vincennes and Porpoise.* 1(10 August 1838 - 2 February 1840). **In** *Records of the United States Exploring Expedition under the command of Lieutenant Charles Wilkes, 1838-1842.* File Microcopies of Records No. 75. Roll 7. United States of America, National Archives, Washington. 1944. [Entry for 7 October 1839 records sighting of and landing on Rose via the lagoon passage. Includes brief notes on vegetation, lagoon, corals, birds (black and white terns, boobies, tropicbirds, frigates) as reported in Wilkes (1845a).]

297. Zeillemaker, C.F., 1975. *Trip report, Rose Atoll National Wildlife Refuge, October 20-25, 1975.* US Fish and Wildlife Service, Kilauea, Hawaii. 8 pp. [Not sighted.]

Accepted January 28, 1992

Index

The following index must not be regarded as comprehensive. Not all references cited were available for detailed annotation. Among those that were annotated, a number do not fall into clear-cut fields of study. Those that are multidisciplinary have been multi-indexed but several are not easily categorised. The numerous cursory descriptions of Rose often make fleeting reference to matters such as the U.S. Exploring Expedition or the restricted number of plant species. Not all such references are indexed. Some are cited by way of example only. Similarly not all references to vernacular names of organisms are listed, but systematic names of most organisms, except fish, are indexed including changes in nomenclature of the birds.