Oman Fish Biodiversity Saud M. Al-Jufaili, Greg Hermosa, Sulaiman S. Al-Shuaily and Amal Al Mujaini Department of Marine Science and Fisheries, College of Agricultural and Marine Sciences, P.O. Box 34, Al-Khod 123, Muscat, Sultanate of Oman sjufaily@squedu.om Abstract. The current work presents a comprehensive checklist o the Omani fish species. The different fish samples have been collected since the establishment of the Denartment of Marine Science and Fisheries (MSAF) in 1986. The fish samples identified by the MSAF were compared with the most recent published book on the Coastal Fishes of Oman. The number of Omani fishes (from both fresh water and sea water) totalled 1179, distributed in 527 genera, 165 families and 37 orders. Under the Chondrichtyes, the most diverse family was Carcharhinidae with a total of 25 species and 8 genera. The Carcharhinidae species comprised 27% of the total species identified under the Chondruchtves. The second most diverse tamily was the dasyatidae with 10 species (11%) and 5 genera. Under the Ostiecthyes, the most diverse three families were the gobiidea with 37 genera and 69 species, the labridae with 26 genera and 63 species, and finally the carangidea with 20 genera and 54 species. The family and English names for the most popular families are provided as well. Keywords: Oman, fishes Introduction Oman has a very long coastline compared to its neighbouring gulf countries. Oman has a 3165 km long coastline with an exclusive economic zone area of 300,000 km?. In addition to the long coastline, Oman is open to three seas: the Arabian Gulf, the Gulf of Oman and the Arabian Sea. Oman has a very active fishery sector with a total of 34000 fishermen distributed in more than 90 fishing villages along the Omani Saud M. Al-Jufaili et al. coast. These fishers bring annually an average of 134000 metric tones of different fishes that are worth an average of 60 Million Omani Ryals (1 O.R. = 2.58 US dollars). The long coastal line and the different seas adjacent to Oman contribute highly to the fish biodiversity and fish population richness in the country. Information and publications on fish fauna of Oman. specifically to the seas adjacent to Oman, are scarce. The Food and Agriculture Organization (FAO) identification sheet for the fishing area 51, which includes Arabian Sea and the gulf of Oman, identified 2354 marine species (FAO, 1984). The most recent publication on Oman fish is by Randall (1995), who listed a total of 123 different families. The Department of Marine Science and Fisheries (MSAF) of Sultan Qaboos University (SQU) also had unpublished data in 1993. The MSAF list included a total of 32 orders, 149 families, 417 genera, and 905 different species. The fish list reported 9 orders, 22 families, 45 genera, and 80 species that belonged to Chondrichtyes and the rest belonged to the Ostiechthyes. The MSAF continued to collect more fish samples and identified new fishes after 1993. The current work compares the two most reliable fish lists in Oman, the published one by Randall and the unpublished most recent MSAF fish list. This will provide the most updated and completed fish list in Oman. The work also provides the family and English names for the most polular fishes in Oman (Appendix 3). Materials and Methods Fish samples were obtained by the MSAF. The samples were purchased and obtained from different fish markets and landing sites along the 3165 km Omani coastline. These fish samples were used for teaching purposes. Other fish samples were obtained from different field trips made by faculty and staff members that have served the department since its establishment in 1986. Considerable fish samples were collected from the fishing trips conducted on board of the MSAF fishing boats along the Omani coast. Other fish specimens were obtained from deeper waters during the acoustic and trawl survey in 1989-1990 by the RV Restreliger

(Al-Abbdelssalaam, 1991), and during the RV Fridtjof Nansen surveys in 1983-1984 (Stromme, 1986). Fresh water fishes were Oman Fish Biodiversity obtained from different streams locally called "wadies" or Oases. The department's ichthyologist, Mr. Greg Hermosa, mainly conducted fish identification. The identification was confirmed following the works of Myers (1991), Carpenter and Allen (1989), Carpenter (1988), Allen and Steene (1988), Smith and Heemstra (1986), Randall (1983 and 1986), Kuronuma and Abe (1986), Nakamura (1985), Allen (1985), Fischer and Bianchi (1984), and Carcasson (1977), among others. The fish list prepared by the MSAF was then compared with the most recent identified fishes reported by Randall (1995). The two fish lists, MSAF and Randall lists, were reviewed carefully and the overall fish list was then created. The current reported fish list is therefore the most authentic and comprehensive list since it includes all the fishes identified by both the MSAF department and by Randall 1995. Results and Discussion The final Omani fish list includes a total of 1179 different species, which were distributed among 527 genera, 165 families, and 37 orders (Table 1). Under the chondricthyes, the MSAF list reported 5 extra new families compared to Randall's list; while under the Osteicthyes there were a total of 29 extra families; only two of these families were reported on Randall's list; Pinguipedidae and Xiphiidae. The other 27 extra new families appeared on the MSAF list (Tables 2 and 3). A total of 90 species were identified belonging to class chondricthyes, which distributed as 11 different orders, 25 families and 48 genera (Table 4). Family Carcharhinidae: Requiem sharks; order Carcharhinformes; recorded the highest number of species, a total of 25. That is 27.7% of the total species identified under the chondricthyes with a total of 8 (17%) different genera. The second highest number of species was recorded under the family Dasyatidae; order Myliobastiformes with 10 species (11% of total species identified under chondricthyes) and a total of 5 different genera (10%). Under the osteichthyes, the total number of species identified was 1089 distributed as 37 different orders, 140 families and 479 genera. The top three families with the highest number of genera and species were the gobidea (37,69), labridea (26,63), and the carangidea (20,54