

KINGDOM OF SAUDI ARABIA

Ministry of Higher Education

KING ABDULAZIZ UNIVERSITY

Faculty of Marine Science

**Report on
RESEARCH ACTIVITIES OF
FACULTY OF
MARINE SCIENCE**

*Prepared by
The Studies and Development Unit*

**Scientific Publishing Centre
King Abdulaziz University
P.O. Box 1540, Jeddah 21441
Saudi Arabia**

● **The Studies and Development Unit** ●

1. Dr. Ali S. Basaham	Chairman
2. Dr. Sami A. Rahim Al-Deen	Member
3. Dr. Ahmed O. Mal	”
4. Dr. Hassan A. Jastania	”
5. Mr. Mohammed A. Ibrahim	”
6. Mr. Ahmed A. Azzoghd	”

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INTRODUCTION

In the name of Allah the most gracious most merciful and peace and blessing be upon to Prophet Mohammad and his companions. Allah almighty say in the Holly Qur'an :

« وَقُلْ أَعْمَلُوا فَسَيَرَى اللَّهُ عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ وَسَتُرَدُّونَ إِلَىٰ عَالِمِ الْغَيْبِ وَالشَّهَادَةِ فَيُنَبِّئُكُمْ بِمَا كُنْتُمْ تَعْمَلُونَ » (١٠٥ التوبة).

“And say : Work righteousness soon will God observe your work, and His apostle, and the believers; soon will ye be brought back to the Knower of what is hidden and what is open; then will He show you the truth of all that ye did”.

Following the objectives of King Abdulaziz University and the Faculty of Marine Science which constitutes an important branch of the University in promoting the progress of science and knowledge through conducting and encouraging scientific research. I am pleased to present this booklet to all researchers and especially those interested in the various disciplines of marine science. The booklet contains valuable information regarding research and scientific activities of the Faculty of Marine Science up to 1415H (1995G). The booklet aims to:

1. List all published papers, which includes the titles of the articles, the author/authors and the Journal of publications. This will facilitate refereeing the papers in future research.
2. Include the titles of the published papers in the Gulf net within which the Kingdom of Saudi Arabia contributes largely in offering services to researchers in the Gulf region.
3. Establish a marine data center that contains all the information about the biological and ecological aspects of the waters surrounding the Arab Peninsula.
4. Gather marine data and information so that it can be made available to planners for establishing private investment projects and marine resources.
5. Provide data and information necessary for coastal constructions.

I supplicate Allah that this effort will be beneficial and may Allah reward us all.

*Dean of the Faculty of Marine Science
Dr. Othman A. Hashim*

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1. Research Papers Published in Scientific Journals

1.1 Marine Biology

- 1.1.1 Contributions to the study of the marine algae of the Red Sea. I. The algae in the neighbourhood of al-Ghardaqa, Egypt (Cyanophyceae, Chlorophyta and Phaeophyta).
Aleem, A.A.
Bull. Fac. Sci. K.A.U., Jeddah 1978, 2, 73-88.
- 1.1.2 Contributions to the study of the marine algae of the Red Sea. II. The algae in the neighbourhood of al-Ghadaqa, Egypt (Rhodophyta).
Aleem, A.A.
Bull. Fac. Sci. K.A.U., Jeddah, 1978, 2, 89-98.
- 1.1.3 Contributions to the study of the marine algae of the Red Sea. III. Marine algae from Obhor, in the vicinity of Jeddah, Saudi Arabia (with 28 plates).
Aleem, A.A.
Bull. Fac. Sci. K.A.U., Jeddah, 1978, 2, 99-118.
- 1.1.4 Littoral vegetation at Rabegh (Red Sea coast) Saudi Arabia.
Baeshin, N.A. and A.A. Aleem.
Bull. Fac. Sci. K.A.U., Jeddah, 1978, 2, 123-130.
- 1.1.5 Short Communication: New records of marine fungi from the Red Sea.
Aleem, A.A.
Bull. Fac. Sci. K.A.U., Jeddah, 1978, 2, 131-132.
- 1.1.6 Phytoplankton populations in the region of Obhor (Jeddah, Saudi Arabia).
Dowidar, N.M., S.A. Raheem El-Din and A.A. Aleem
Bull. Fac. Sci. K.A.U., Jeddah, 1978, 2, 271-292.
- 1.1.7 The effect of salinity on the distribution of *Fucusceranoides*.
Khafaji, A.K. and Norton, T.A.
Estuarine and coast. Mar. Sci. (1978), 8.

- 1.1.8 Antibiotic affects of Crustose germings of the red alga *Chondrus crispus* Stach. on benthic diatoms.
Khafaji, A.K. and Boney, A.D.
Ann. Bot. No. 43. (1979).
- 1.1.9 Age determination and growth studies of *Lethrinus mahsena* and *L. xanthochilus*.
Hashim, M.T. and A.A. Shakour
Jed. Jour. Mar. Res. Vol. 1, 1981, pp. 11-21.
- 1.1.10 Sublethal effects of heavy metals on *Nitzschia colostereum* from the Red Sea.
Behairy, A.K.A. and A.M.M. Ibrahim.
Jed. Jour. Mar. Res. Vol. 1, 1981, pp. 65-70.
- 1.1.11 An algal community from the springs at Al-Qaseem, Saudi Arabia.
Aleem, A.A. , K.H. Khafaji and B.A. Al-Bassam.
Bull. Fac. Sci., KAU., Jeddah, Vol. 6, 1982, pp. 73-75.
- 1.1.12 The genus *Ceratium* from the Red Sea.
Dowidar, N.M. .
J.F.M.S., KAU., Vol. 3, 1983, pp. 5-37.
- 1.1.13 Coastal resources and marine environment.
Khafaji, A.K.
F.S.A.R.C., Baghdad, Iraq, pp. 200 (1983).
- 1.1.14 *Anaperus trifurcatus* Nov. Sp. (Arcophora: Anaperidae): A new species of Acoelan *Turberlaria* from the Red Sea.
Beltagi, S.
J.F.M.S., KAU., Vol. 3, 1983, pp. 49-71.
- 1.1.15 A preliminary investigation into the toxicity of 'S SH' an alkaline cleanser and oil dispersant - on fishes.
Friese, U. Erich .
J.F.M.S., KAU., Vol. 3, 1983, pp. 81-84.
- 1.1.16 Biological studies on *Siganus rivulatus* (Forsk.) in the Red Sea.
Hashem, M.T. .
J.F.M.S., KAU., Vol. 3, 1983, pp. 119-128.

- 1.1.17 The effects of spearfishing pressure on grouper (Serranidae) populations in the eastern Red Sea.
Oakley, S.G.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 341-359.
- 1.1.18 *Amphiscolops-Mainelliensis* Nov. Sp. (*Archoophora convolutidae*): A new species of Acoelan Turbellaria from the Red Sea, North of Jeddah.
Beltagi, S. and Khafaji, A.K.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984.
- 1.1.19 Experimental gill-net fishing along the Saudi coast of the Red Sea from Jeddah to Yanbu.
Kholy, A.A., M.T. Hashim and G. Hariry
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 360-361.
- 1.4.20 Human impact on corals in fringing reefs near Jeddah, Red Sea.
Antonius, A.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 363-389.
- 1.1.21 Coral diseases on Indo-Pacific species: A first record.
Antonius, A.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, p. 416.
- 1.1.22 Studies on some Pelecypods and Gastropods of shallow water in the region of north Jeddah (Red Sea).
Beltagi, S. and M.S. Ghamrawy.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 417-470.
- 1.1.23 Assessment of human impact on Giant Clams (*Tridacna maxima*) near Jeddah, Saudi Arabia.
Bodoy, A.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 472-490.
- 1.1.24 *Amoniscoloos-Marinellensis* No. sp. (*Archoophora*: *Convolutidae*): A new species of Acoelan *Turbellaria* from the Red Sea north of Jeddah.
Beltagi, S. and A.K. Khafaji.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 491-517.
- 1.1.25 Antibiotic effects of crustose germlings of species of *Acoelan Turbellaria* from the Red Sea in front of Jeddah.
Beltagi, S. and A.K. Khafaji.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 491-517.

- 1.1.26 Studies on the ecology and biology of the Penaeid shrimp in the Jeddah region.
Ghamrawy, M.S. and D.A. Jones.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 520-539.
- 1.1.27 Preliminary survey of micro and macrophytes south of Jeddah, Red Sea.
Khalil, A.N. and A.K. Khafaji and A.M. Ibrahim.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 555-576.
- 1.1.28 Primary productivity and standing crop of phytoplankton in the coastal waters of Jeddah (Red Sea).
Dowidar, N.M. and E.A. Shaikh.
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 577-596.
- 1.1.29 Preliminary investigation of algae and seagrasses from the Red Sea, near Jeddah, Saudi Arabia.
Khafaji, A.K. and A. Meinesz
Proc. Symp. Coral Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 597-611.
- 1.1.30 Morphometric and meristic studies of the Gerreidae bleeker, 1889, of the Red Sea, with notes on the identification of the species.
Hashim, M.T. and A.J. Salamah.
J.F.M.S., KAU., Vol. 4, 1985, pp. 193-210.
- 1.1.31 The catch and growth rates of *Gerres rupellii* Kunz, 1884 of the Red Sea.
Hashim, M.T. and A.J. Salamah.
J.F.M.S., KAU., Vol. 4, 1985, pp. 213-231.
- 1.1.32 Sexial maturation and related studies on *Gerres rupellii* Kunz, of the Red Sea.
Hashim, M.T. and A.J. Salamah.
J.F.M.S., KAU., Vol. 4, 1985, pp. 233-249.
- 1.1.33 Alginate and Liminarine composition of some brown algae from the Red Sea near Jeddah, Saudi Arabia.
Khafaji, A.K.
Pak. J. Bot. 18(2) : 351-353 (1986).

- 1.1.34 Cartographic d'une zone littorale en mer rouge par traitements numeriques des donnees HRV DE Spotl.
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Photo-interpretation, 1987 - 4(5), 35-43.
- 1.1.35 Mangrove ecosystem of southern Red Sea coast of Saudi Arabia.
Mandura, A.S., Saifullah, S.M. and Khafaji, A.K.
Proc. Saudi Biol. Soc., 10 : 165-193 (1987).
- 1.1.36 Littoral and shallow subtidal environments.
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In Red Sea, Pergamon Press, pp. 170-185 (1987).
- 1.1.37 Temporal and spatial variations in the Carbohydrate, lipid and protein contents of *Avicennia marina* from the Saudi Arabian Red Sea coast.
Khafaji, A.K., Mandura, A.S. and Saifullah, S.M.
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- 1.1.38 Ecology of a mangrove stand of a central Red Sea coast area: Ras Hatiba (Saudi Arabia).
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- 1.1.39 First record and redescription of *Planocera crosslandi* Laidlow, 1903: A marine polyclad turbellarian in the shallow water of Obhur Creek Saudi Arabia.
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- 1.1.40 A *Platymonas* bloom in coastal waters of Jeddah, Saudi Arabia.
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Pak. J. Bot. 20(2) : 285-289 (1988).
- 1.1.41 Effects of temperature on oxygen consumption and heart rate in the semi-terrestrial crab, *Ocypode saratan* (Forskal).
Eshky, A.A., R.J.A. Atkinson and A.C. Taylor
Mar. Behav. Physiol., 1988, Vol. 13, pp. 341-358.
- 1.1.42 Some Penaeid Shrimp Species from the Red Sea and the Arabian Gulf.
Ghamrawy, M.S.
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- 1.1.43 Quantitative and qualitative studies of the bacterial microflora of turbot, *Scophthalmus maximus* L., gills.
Mudarris, M. and B. Austin
J. Fish Biol. (1988) 32, 223-229.
- 1.1.44 Systemic disease in turbot *Scophthalmus maximus* caused by a previously unrecognised Cytophaga-like bacterium.
Mudarris, M. and B. Austin
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- 1.1.45 Litter production in a mangrove stand of the Saudi Arabian Red Sea coast.
Saifullah, S.M., Khafaji, A.K. and Mandura, A.S.
Aquatic Botany, 36, pp. 79-86 (1989).
- 1.1.46 *Amphiscolops saudiensis* nov. sp. (Archoophora: Convolutidae) A new species of Acoelan Turbellaria from the Red Sea.
Beltage, Samir and Abdallah S. Mandura.
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- 1.1.47 Notes on the biology of Penaeid shrimp at Gizan, Red Sea.
Ghamrawy, M.S.
J.K.A.U.: Mar. Sci., Vol. 1, pp. 67-76, 1990.
- 1.1.48 Seasonal variations in the Calorific values of Mangrove plants of the Saudi Arabian Red Sea coast.
Khafaji, A.K.
J.K.A.U.: Sci., Vol. 2, pp. 7-16, 1990.
- 1.1.49 Litter production in two mangrove stands of the southern Red Sea coast of Saudi Arabia (Jizan).
Khafaji, A.K., A.S. Mandura, S.M. Saifullah and A.Z. Sambah
J.K.A.U.: Mar. Sci., Vol. 2, pp. 93-100, 1991.
- 1.1.50 Histology and ultrastructure of the chloride cell in freshwater- and sea water-acclimated specimens of *Oreochromis mossambicus* and *O. spilurus*.
Al-Amoudi, M.M. and C. Aguis
J.K.A.U.: Mar. Sci., Vol. 2, pp. 123-136, 1991.
- 1.1.51 Zonation of organisms on rocky shores of northern Jeddah.
Ghamrawy, M.S.
J.K.A.U.: Mar. Sci., Vol. 2, pp. 137-147, 1991.

- 1.1.52 *Hofstenia arabiensis* Nov. Sp. (Hofsteniidae): A new species of Acoelan Turbellaria from the Red Sea North of Jeddah.
Beltagi, S. and A.S. Mandura
J.K.A.U.: Sci., Vol. 3, pp. 65-90 (1991).
- 1.1.53 Behavioural ecology and heat response of the mangrove crabs (*Uca spp.*) at Madia Creek near Jizan City, Saudi Arabia.
Eshky, A.A.
J.K.A.U., Mar. Sci., Vol. 3, pp. 67-79 (1992).
- 1.1.54 Effects of temperature on the oxygen consumption and heart rate in the inter-tidal wedge clam, *Donax faba* (Gmelin).
Eshky, A.A. and M.A. Ba-Akdhah
J.K.A.U.: Mar. Sci., Vol. 3, pp. 81-90 (1992).
- 1.1.55 Evidence of additional functions of the Pericardial Sacs in the Bronchial Ventilation in the Grapsid Crab *Grapsus tenuicrustatus*.
Eshky, A.A.
J.K.A.U.: Mar. Sci., Vol. 3, pp. 91-104 (1992).
- 1.1.56 *Goharia obscura* Nov. Gen., Nov. Sp. (Archoophora: Goharidae Nov. FAM.) A new Acoelan Turbellaria from the Red Sea.
Beltagi, Samir and Ali Adnan Eshky
J.K.A.U.: Sci., Vol. 4, pp. 101-126 (1992).
- 1.1.57 The effect of protein source on the growth of the prawn *Palaemon elegans* Rathke, 1837 (Decapoda, Caridea).
Hartnoll, R.G. and A.J. Salama
Crustaceana 63, 1, 1992, pp. 81-90.
- 1.1.58 Effects of food and feeding regime on the growth and survival of the prawn *Palaemon elegans* Rathke, 1837 (Decapoda, Caridea).
Salama, A.J. and R.G. Hartnoll
Crustaceana 63, 1, 1992, pp. 11-22.
- 1.1.59 Histopathology of a gill and systemic disease of turbot (*Scophthalmus maximus*) caused by a Cytophaga-Like Bacterium (CLB).
Mudarris, M. and B. Austin
Bull. Eur. Ass. Fish Pathol., 12(4), pp.120-123, 1992.

- 1.1.60 The first zoeal stage of four species of *Trapezia* (Crustacea, Brachyura, Xanthidae).
Al-Aidaros, Ali
J.K.A.U.: Mar. Sci., Vol. 3, pp. 57-66, 1992.
- 1.1.61 Biological and biochemical studies on some components of Red Sea algae, possibility of using the plants as part of nutritional diets.
Khafaji, A.K., A.M.N. El-Nakkadi and A.M. El-Hassan
J.K.A.U.: Mar. Sci., Vol. 3, pp. 105-118, 1992.
- 1.1.62 Fisheries study in the Gulf.
Hashim, O.A.
Marine Pollution Bulletin, Volume 27, pp. 279-284, 1993.
- 1.1.63 Planktonic Decapoda from the Western Coast of the Gulf.
Al-Aidaros, Ali M.
Marine Pollution Bulletin, Volume 27, pp. 245-249, 1993.
- 1.1.64 Uptake of hydrocarbon pollution by fish eggs and larvae.
Hashim, O.A. and M.G. Poxton
J.K.A.U.: Mar. Sci., Vol. 4, pp. 145-163, 1993.
- 1.1.65 Studies on the cultivation of *Avicennia marina* mangrove.
Khafaji, A.K.M., A.M.N. El-Nakkadi, S.Z. El-Agamy and M. Ilyas
J.K.A.U.: Mar. Sci., Vol. 4, pp. 165-179, 1993.
- 1.1.66 Phytochemical studies on mangrove and the possibility of using it as fodder.
Khafaji, A.K., A.M. El-Hassan, A.S. Mandura, G.H. Al-Hachim and A.M.N. El-Nakkadi.
J.K.A.U.: Mar. Sci., Vol. 4, pp. 181-195, 1993.
- 1.1.67 Human impact on the mangrove of Khor Farasan Island, Souther Red Sea coast of Saudi Arabia.
Mandura, A.S. and Khafaji, A.K.
Towards the rational use of high salinity tolerant plants Vol. 1 : 353-361 (1993).
- 1.1.68 *Vibrio alginolyticus* : The cause of gill disease leading to progressive low-level mortalities among juvenile turbot, *Scophthalmus maximus* L., in a Scottish Aquarium.
Austin, B. and Mudarris, M.
Journal of Fish Diseases, 16, 277-280 (1993).

- 1.1.69 Flavobacterium Scopthalmum sp. nov., a pathogen of turbot (*Scopthalmus maximus* L.).
Muddaris, M., Austin, B., Segers, P., Vacanneyt, M., Hoste, B. and Bernardet, J.F.
International Journal of Systematic Bacteriology, pp. 447-453 (1994).
- 1.1.70 A Preliminary Survey of Fishes in the Arabian Gulf after War Time Oil Spillage.
Al-Ansi, Mohsin A. and Othman A. Hashim
J. K.A.U.: Mar. Sci., Vol. 5, pp. 107-120, 1994.
- 1.1.71 Variation in Levels and Location of Lipids in Corals Tissue of the ROPME Sea Area.
Al-Sofyani, A.A.
J. K.A.U.: Mar. Sci., Vol. 5, pp. 121-131, 1994.
- 1.1.72 Evaluation of Protein Requirement for *Oreochromis spilurus* Fry in Red Sea Water. (Arabic).
Al-Amoudi, M.M. and B.M. Rasim
J. K.A.U.: Mar. Sci., Vol. 5, pp. 3-20, 1994.
- 1.1.73 Effect of temperature, pH and media on the recovery of aerobic heterotrophic bacteria from the rabbit fish *Siganus rivulatus*.
M.S.A. Mudarris
- 1.1.74 Osmotic and ionic regulation in the ghost crab *Ocypode saratan* in hypoionic and hyperionic media and following desiccation in air.
A.H. Al-Wassia and A.A. Eshky

1.2 Marine Chemistry

- 1.2.1 The polysaccharides of the prawn seaweed *Turbinaria meryana*.
El-Sayed, M.M. .
Carbohydrate Research, 110, 1982, 277-282.
- 1.2.2 Distribution of general pollutants in Jeddah coastal waters, Red Sea:
I-Phosphate and silicate.
El-Rayis, O., M.M. Abbas and A.A. Qurashi.
J.F.M.S., Vol. 2, 1982, pp. 73-80.
- 1.2.3 Biochemical composition of some marine brown algae from Jeddah coast,
Saudi Arabia.
Behairy, A.K.A. and M.M. El-Sayed.
Indian Journal of Marine Sciences, Vol. 12, 1983, pp. 200-201.
- 1.2.4 Fatty acid composition of some algal lipids from the Red Sea.
El-Sayed, M.M. .
J.F.M.S., Vol. 3, 1983, pp. 141-148.
- 1.2.5 Preliminary investigations of some heavy metals in water, sediments and
plankton in Obhur Creek (Eastern Red Sea).
Behairy, A.K.A., O.A. El-Rayis and A.M. Ibrahim.
J.F.M.S., Vol. 3, 1983, pp. 129-138.
- 1.2.6 Purification and characterization of agar from *Digenea simplex*.
El-Sayed, M.M. .
Carbohydrate Research, 118, 1983, 119-126.
- 1.2.7 A new sampler for collecting water for dissolved oxygen or hydrogen
sulphide analysis in the micro layers of shallow water column.
Behairy, A.K.A. and O.A. El-Rayis.
Rapp. l'amm. Int. Mer. Medit., 28, 7 (1983), pp. 82-84.
- 1.2.8 Effects of pollution on the coastal waters of the Red Sea in front of Jeddah,
Saudi Arabia. 1. Environmental conditions.
Behairy, A.K.A. and M.A.H. Saad.
Tetilyls 11(2), 1984, pp. 111-117.

- 1.2.9 Effect of pollution on the coastal waters of the Red Sea in front of Jeddah, Saudi Arabia. 2. Nutrient salts.
Behairy, A.K.A. and M.A.H. Saad.
Tetilyls 11(2), 1984, pp. 119-125.
- 1.2.10 Dissolved organic matter in coastal waters of Jeddah, Saudi Arabia.
Behairy, A.K.A. and M.M. El-Sayed.
Mar. Pollu. Bull. Vol. 15, 1984, pp. 119-125.
- 1.2.11 Chemico-physical characteristics of the coastal Red Sea waters north of Jeddah, Saudi Arabia.
Saad, M.A.H. and M.A. Fahmy
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- 1.2.12 Distribution of nutrient salts in the Saudi coastal waters of the Red Sea.
Saad, M.A.H. and M.A. Fahmy.
Proc. Symp. Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 129-144.
- 1.2.13 Inorganic nitrogen forms as indicator of sewage pollution in the coastal water of Jeddah, Red Sea.
Abbas, M.M. and F.M. Haddad.
Proc. Symp. Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 145-146
- 1.2.14 A preliminary investigation for level and distribution of some heavy metals in coastal water of Jeddah, Red Sea during 1981-1982.
El-Rayis, O.A., M.M. El-Sayed and A.J. Turki.
Proc. Symp. Reef Environ. Red Sea, Jeddah, Jan. 1984, pp. 147-169
- 1.2.15 Removal of detergent fluorescent whitening agents by contact stabilization process in Jeddah waste water treatment plants.
Wahba, M.M.A.
Proc. Symp. Reef Environ. Red Sea, Jeddah, Jan. 1984, 170.
- 1.2.16 Distribution and concentration of dissolved organic matter along the eastern coast of the Red Sea between Jeddah and Yanbu, Saudi Arabia.
El-Sayed, M.M. .
J.F.M.S., Vol. 4, 1985, pp. 113-129.
- 1.2.17 Role of Petromin refinery in adding crude oils to Jeddah coastal waters.
Awad, Hassan .
J.F.M.S., Vol. 4, 1985, pp. 131-144.

- 1.2.18 Distribution of some heavy metals in sediments, water and different trophic levels from Jeddah Coast, Red Sea.
El-Rayis, O.A.
J.K.A.U.: Earth Sci., Vol. 3, Special Issue: 1st Saudi Symp. on Earth Sci., Jeddah, 1989, pp. 33-45.
- 1.2.19 Dispersion of Arabian crude oils in sea water by finasols.
Awad, H. and S.H. Gashlan
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- 1.2.20 Oil Pollution in waters, fish and sediments in Gulf of Oman environment.
Awad, H., S.A. Al Eissa and M.A. Al Moharamy
J.K.A.U. Mar. Sci., Vol. 1, pp. 9-16, 1990.
- 1.2.21 Heavy metal pollution in lagoon Mariut, on the southern coast of eastern Mediterranean sea.
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2. Research Papers Submitted for Publication

2.1 Marine Biology

- 2.1.1 EFFECT OF THERMAL AND COMBINED THERMAL-SALINITY ON *OREOCHROMIS MOSSAMBICUS* AND *O. AUREUS* *O. NILOTICUS* HYBRIDS DURING TRANSFER TO SALT WATER
Al-Amoudi, M.M.
- 2.1.2 A TAXONOMIC AND ECOLOGICAL SURVEY OF MARINE ALGAE IN THE RED SEA
Aleem, A.A.
- 2.1.3 REPRODUCTIVE BIOLOGY OF LIZARD FISH, *SAURIDA TUMBILE* (FORSKAL) IN JIZAN REGION OF THE RED SEA
Bakhsh, A. A.
- 2.1.4 THE BIOLOGY OF THREAD BREEM, *NEMIPTERUS JAPONICUS* (BLOCTT) FROM JIZAN REGION OF THE RED SEA
Bakhsh, A.A.
- 2.1.5 "RIEDLIA AGYPTICA" NOV. GEN. (NOV. SP. A NEW ACOELAN TURBELLARIA) (FAM. GOHARIDAE) IN THE SHALLOW WATER OF THE RED SEA
Beltagi, S.
- 2.1.6 THE FIRST ZOEAE OF *ACTAEODES HIRSUTISSIMUS* (RUPPELL, 1830) AND *A. TOMENTOSUS* (H. MILNE EDWARDS, 1834) (CRUSTACEA: DECAPODA: BRACHYURA: XANTHIDAE: ACTAEINAE)
Clark, P.F. and Al-Aidaros, A.M.
- 2.1.7 THE ANNUAL CYCLE OF PRIMARY PRODUCTION IN THE CENTRAL RED SEA OFF JEDDAH
Dowidar, N. M.
- 2.1.8 EPIPHYTIC AND ASSOCIATED ALGAE IN THE *CYSTOSEIRA MYRICA* SETTLEMENTS OF JEDDAH COAST, RED SEA
Khalil, A.N.
- 2.1.9 ECOLOGY OF MANGROVES OF SAUDI ARABIAN RED SEA COAST - AN OVERVIEW
Saifullah, S.M.
- 2.1.10 FISHERIES STUDY FROM OIL POLLUTED AREAS IN THE ARABIAN GULF.
Hashim, O.A., Al-Hussaini, M. and Al-Baz, A.

2.1.11 FECUNDITY OF *LIMANDA LIMANDA* IN OXWICH BAY. SOUTH WALES. U.K.
Jastania, Hassan A.

2.1.12 PHYTOCHEMICAL STUDIES ON SOME MARINE ALGAE GROW ON SAUDI ARABIA RED SEA COASTS AND THE POSSIBILITY OF USING THEM AS FISH FODDER.
Khafaji, A.K. and El-Nakkady, A.M.

2.1.13 THE EFFECT OF SEWAGE OF JEDDAH CITY ON THE SOUTH CORNICHE MARINE ENVIRONMENT INCLUDING A NEARBY MANGROVE STAND.
Mandurah, A.S.

2.2 Marine Chemistry

2.2.1 HAZARD EFFECT OF URBANIZATION ON TWO LAGOONS ON THE SAUDI RED SEA COAST, JEDDAH

El-Rayis, O.A. and Moammar, M.O.

2.2.2 HYDROGRAPHY OF A CREEK (SHARM OBHUR) IN THE ARID AND HOT REGION OF RED SEA

El-Rayis, O.A.

2.2.3 UV ABSORBANCE, NUTRIENTS AND TROPHIC STATUS OF A COASTAL AREA OFF JEDDAH (AFTER DIVERSION OF SEWAGE WASTE EFFLUENTS INTO IT) .

El-Rayis, O.A.

2.2.4 HEAVY METAL POLLUTION IN THE COASTAL RED SEA WATERS IN FRONT OF JEDDAH

Saad, M.A.H. and Fahmy, M.A.

2.2.5 OCCURRENCE AND DISTRIBUTION OF TRACE METALS IN SHARM OBHUR, A COASTAL SEA WATER BODY NORTH OF JEDDAH

Saad, M. A.H. and Fahmy, M.F.

2.2.6 PETROLEUM HYDROCARBONS IN SEA WATERS FROM SAUDI COAST OF RED SEA.

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2.3 Marine Geology

2.3.1 INVASION OF HYPERSALINE LAGOON WATER IN RAS HATIBA, RED SEA COAST OF SAUDI ARABIA, AS REVEALED FROM ELECTRICAL SOUNDINGS.

El Abd, Y.I. and Awad, M.B.

2.3.2 TYPICAL CORE GEOPHYSICAL PARAMETERS OF SHOEBA LAGOON MANGROVE SOIL, RED SEA

El Abd, Y.I. and Awad, M.B.

2.3.3 CORAL REEFS ENVIRONMENT IN THE RED SEA: DESTRUCTION, PROTECTION AND SUSTAINABLE DEVELOPMENT

El-Sayed, M.Kh.

2.3.4 TEXTURAL CHARACTERISTICS, MINERALOGY AND FAUNA IN THE SHORE ZONE SEDIMENTS BETWEEN RABIGH AND SHARM AL-KHARRAR, EASTERN RED SEA, SAUDI ARABIA

Gheith, A.M. and Abou Auf, M.A.

2.3.5 ON THE ORIGIN OF SMALL TOPOGRAPHIC LOW EXPOSURES ALONG THE EASTERN RED SEA COASTAL PLAIN, JEDDAH REGION.

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2.3.6 BEACHROCK IN SOUTH JEDDAH, THE RED SEA COAST OF SAUDI ARABIA.

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2.3.7 VARIATION OF BENTHIC FORAMINIFERAL SPECIES WITH DIFFERENT MICROENVIRONMENTS ALONG THE SHORE ZONE PROFILE NORTH OF RABIGH COAST, EASTERN RED SEA, SAUDI ARABIA.

Abou-Auf, M.A.

2.4 Marine Physics

2.4.1 Relative contribution of external sources of mean sea level variations at Port Sudan, Red Sea.

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2.4.2 An analysis of Arabian Gulf monthly mean sea level.

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3. Research Projects

3.1 Research Projects Funded by Scientific Research Council, King Abdulaziz University

- 3.1.1 Feeding habits and sediment processing by sea urchins, bivalves and fishes in the eastern Red Sea.

Durgaprasada Rao, M.M. El-Amoudi and S.M. Beltagi

Scientific Research Council 015/406

- 3.1.2 Heat balance and the thermocline studies in coastal waters near Jeddah.

Mustafa O. Moammar, Fazal Ahmad and S.A.R. Sultan

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- 3.1.3 Coral diseases in Red Sea reefs.

Arnfried Antonius

Scientific Research Council 017/406

- 3.1.4 Taxonomical and ecological study upon Turbellarians Acoelia and its relation to its symbiotic algae in the shallow water of the Red Sea near Jeddah.

Samir M. Beltagi and Abdullah S. Mandura

Scientific Research Council 018/406

- 3.1.5 Physiological and ecological studies on crustaceans and fish of the mangrove swamps.
Ali A. Eshky, M. Al-Amoudi and A. Bakhsh
Scientific Research Council 001/407
- 3.1.6 Circulation and mixing in coastal waters near Jeddah.
M.O. Moammar, F. Ahmad and S.A.R. Sultan
Scientific Research Council 144/407
- 3.1.7 Depositional and diagenetic history of evaporitic sediments in a coastal lagoon and Sabkha, Eastern Red Sea.
A.K.A. Behairy, N.V. D. Rao, El-Abd, Y.I. and H. Al-Ghobary
Scientific Research Council 145/407
- 3.1.8 Vitamin C rote in the growth and the production of two Tilapias: *Oreochromis spilurus* and *Oreochromis aureus*.
M.M. Al-Amoudi, A.M. Al-Nakkadi and M.O. Saeed
Scientific Research Council 146/407
- 3.1.9 Laboratory induced spawning of *Siganus rivulatus* (Rabbit Fish) and the rearing of larvae.
S.G. Oakley and M.M. Al-Amoudi
Scientific Research Council 147/407

- 3.1.10 Effects of sewage pollutions on the distribution of benthic foraminifera in the nearshore regions of the Jeddah coast.
M. Abou-Ouf and N.V.D. Rao
Scientific Research Council 147/408
- 3.1.11 Monitoring and assessment of the water quality of the coastal lagoon "Arba'in", Jeddah.
O.A. El-Rayis, A.M. El-Nakkady and M.O. Moammar
Scientific Research Council 169/408
- 3.1.12 (1) Comprehensive applied biological and biochemical studies on Mangroves growing on Saudi coasts.
(2) Chemical composition of mangroves.
A.K. Khafaji, A.M. Al-Nakkadi, A.S. Mandura and A.M. Al-Hassan
Scientific Research Council 014/409
- 3.1.13 The flushing of a coastal lagoon (Shoaiba) and its fluctuations.
F. Ahmad and S.A.R. Sultan
Scientific Research Council 015/409
- 3.1.14 Monitoring and assessment of the water quality of the coastal lagoon Re'ayat Al-Shabab, Jeddah.
O.A. Al-Rayis, A.M. Al-Nakkadi and M.O. Moammar
Scientific Research Council 017/409

3.1.15 Seasonal variations of the hydrographic structure and water circulation of the Red Sea.

M.O. Moammar, F. Ahmad and S.A.R. Sultan

Scientific Research Council 018/409

3.1.16 Wave characteristics in front of Jeddah coast.

S.M. Abdelrahman, S.A.R. Sultan and F. Ahmad

Scientific Research Council 038/410

3.1.17 Biochemical investigation of the constituents of some of the abundant algae in Saudi Arabian Red Sea coast.

A.K. Khafaji, A.M. Al-Nakkadi and A.M. Al-Hassan

Scientific Research Council 041/410

3.1.18 Effect of Palm Kernel and Bovine and Goat Manure on the growth of *Oreochomic spilurus*.

M.M. Al-Amoudi and A.M. Basheer

Scientific Research Council 045/410

3.1.19 Studies to overcome obstacles in cultivating mangrove along the Red Sea coast of Saudi Arabia.

A.K. Khafaji and A.M. Al-Nakkadi

Scientific Research Council 111/411

- 3.1.20 A survey of the commercial Pearl *Oyster Pinctada radiata* and *Pinctada margaritifera* ground and heir recruitment in the Red Sea.
S.A. Rahim Al-Din and A.M. Al-Aidaros
Scientific Research Council 113/411
- 3.1.21 Effect of marine fish cages on the Red Sea coastal water.
M.M. Al-Amoudi, O.A. Al-Rayis and M.S. Hariry
Scientific Research Council 162/412
- 3.1.22 A rapid method for monitoring dispersed sewage effluents and for helping in the physical classification of water masses in lagoons Arabaen and Reayat Al-Shabab, Jeddah.
O.A. Al-Rayis
Scientific Research Council 163/412
- 3.1.23 The effect of sewage pollution of Jeddah city on a nearby mangrove stand.
A.S. Mandura, A.M. Al-Hassan, F. Ahmad and M.A. Modarres
Scientific Research Council 164/412
- 3.1.24 The analysis of marine meteorological data from Trans Antarctic Expedition 1989-90.
M.O. Moammar, F. Ahmad and S.A.R. Sultan
Scientific Research Council 165/412

3.1.25 Effect of sea fish cages on the coastal environment of the Red Sea.

M.M. Al-Amoudi and M.S.B. Hariri

Scientific Research Council 162/412

3.1.26 A guide to the identification of eggs and larvae of the Emperor fishes
(Shaor) occurring in the Red Sea.

O. Abdu Hashim, A.A. Bakhsh and A.J. Salamah

Scientific Research Council 80/413.

3.1.27 The distribution of heavy metals and their effects on phytoplankton
population along the coast of Jeddah.

S.M. Al-Harbi, H.A. Jestiniah and H.S. Khomies

3.2 Research Projects Funded by King Abdulaziz City for Science and Technology

3.2.1 Man's impact on coral reef health in the red sea.

A. Antonius, M. Moammer and H. Awad

3.2.2 Feasibility study of Shrimp Farming in Saudi Arabia.

A.J. Salamah, A.M. Al-Aidaros and S.A. Rahim Eddin.

4. Scientific Reports

4.1 Scientific Reports Prepared by the Faculty

- 4.1.1 Investigations on the Metalliferous Sediments from some Deeps in the Red Sea. (1984-1985) pp. 1-119.**

4.2 Scientific Reports Prepared in Collaboration with Other Scientific Organizations

- 4.2.1 Study of coral reef fish in the coastal area in front of Jeddah.
Faculty of Marine Science, King Abdulaziz University and the Italian Research Groups in the Middle East (200 slides, 1978) (in Arabic).
- 4.2.2 Ecology of a coral reef complex and of an inshore lagoon near Sharm Obhur, Red Sea (Jeddah - Saudi Arabia).
Faculty of Marine Science, King Abdulaziz University and French Oceanographic Mission in the Middle-East Nice University. 1982-1983 (pp. 1-194).
- 4.2.3 The environment and fisheries in the coastal area between Jeddah and Yanbu.
Faculty of Marine Science, King Abdulaziz University and Fishery Research Center, Ministry of Agriculture and Water Resources. Western Prov. Jeddah 1984, 320 pp. (in Arabic).
- 4.2.4 A review of the geology of coral reefs in the Red Sea.
Faculty of Marine Science, King Abdulaziz University and UNEP. 1992.

5. Theses/Dissertations Submitted for the Fulfillments of the Requirements of Postgraduate Studies

5.1 Theses/Dissertations Supervised by the Faculty

5.1.1 Ali Mohammad Al-Aidarooos

Studies on the zooplankton community with special reference to Copepoda,
North of Jeddah, Saudi Arabia.

Degree : Master

Supervisor : Dr. A. Al-Kholy

Date : 1984

5.1.2 Adnan Gamil Salamah

Species identification of the gerreidae bleeker, 1859 of the Red Sea, with some
biological studies on the *Gerres ruppellii* Klunz, 1884.

Degree : Master

Supervisor : Dr. M. T. Hashim

Date : 1984

5.1.3 Ghazi Abdullah Hareri

Disease incidence in the family Carangidae Jack fishes in Red Sea fisheries of Saudi Arabia.

Degree : Master

Supervisor : Dr. Dief El-Sarngawy

Date : 1984

5.1.4 Faisal Mohammed Ghazaly

Effect of wesage pollution in the occurrence of zooplankton community in Al-Arbaeen and Al-Shabab lagoons in Jeddah region.

Degree : Master

Supervisor : Dr. Ali M. Al-Aidarooos

5.1.5 A.A. Al-Sofyani

Studies on growth and reproduction of Red Sea Scleractinia.

Degree : Master

Supervisor : Dr. A. Antonius

5.1.6 M.A. Ba-Akdhah

Studies on some ecological, physiological and biological aspects of the wedge clam *Donax faba* Gmelin.

Degree : Master

Supervisors : S.M. Beltagi and A.A. Eshky

5.1.7 Samir M. Ba-Khadlak

Evaluation of petroleum wates in the Petromin Refinery of Jeddah and their effects on marine phytoplankton.

Degree : Master

Supervisor : S.M. Saifullah

5.1.8 Nabil A. Mofly

Studies of some aspects of Shu' Aybah mangrove ecosystem.

Degree : Master

Supervisors : A.S. Mandura and A.K. Khafaji

5.1.9 Bahieg M. Rasem

A study on the nutrition of Tilapia *Oreochromis spilurus* larvae in Red Sea water.

Degree : Master

Supervisor : M.M. Al-Amoudi

5.1.10 Ahmad Hammad Al-Harbi

Association of *Pseudomonas puterfaciens* with Disease in Rabbit Fish (*Siganus rivulatus*).

Degree : Master

Supervisor : M.M. Al-Amoudi and M.O. Saeed

5.2 Theses/Dissertations Supervised in Collaboration with Other Faculties

5.2.1 Osama A. Abu-Zinadah

Morphological studies on the Gut of the *Chanos chanos* and its relation to food.

Supervisors :

1. M.T. Hashim (Faculty of Marine Science, King Abdulaziz University).
2. A.A. Farag (Faculty of Science, King Abdulaziz University).

Degree : Master

5.2.2 Mostafa Saad Ghamrawy

Studies on the ecology and the biology of Penaeid Shrimp in the region of Jeddah, Saudi Arabia.

Supervisors :

1. A.A. Al-Kholy (Faculty of Marine Science, King Abdulaziz University).
2. Alan Jones (University College of North Wales, U.K.).

Degree : Ph.D.

5.2.3 Ali Adnan Eshky

Aspects of the ecology, behaviour and physiology of the ghost crab *Ocypode saratan* (Forsk.).

Supervisors :

1. A.A. Al-Kholy (Faculty of Marine Science, King Abdulaziz University).
2. R.J.A. Atkinson (University of Glasgow, U.K.).

Degree : Ph.D.

5.2.4. Ali Al-Aidaros

Studies on Larvae of Decapod Crustacea from the Central Red Sea.

Supervisors :

1. S.M. Saifullah (Faculty of Marine Science, King Abdulaziz University).
2. Dan Williumson (University of Liverpool, U.K.)

Degree : Ph.D.

5.2.5 A.A. Al-Sofyani

The physiological ecology of Red Sea corals.

Supervisors :

1. A. Antonius (Faculty of Marine Science, King Abdulaziz University).
2. Peter S. Davies (University of Glasgow, U.K.).

Degree : Ph.D.

تقديم

بسم الله والحمد لله والصلاة والسلام على سيدنا محمد رسول الله صلى الله عليه وعلى آله وصحبه وسلم ،
سبحان من قال في محكم تنزيله : « وَقُلِ أَعْمَلُوا فَسَيَرَى اللَّهُ عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ وَسَتُرَدُّونَ إِلَى
عَالِمِ الْغَيْبِ وَالشَّهَادَةِ فَيُنَبِّئُكُمْ بِمَا كُنْتُمْ تَعْمَلُونَ » (١٠٥ التوبة) . .

انطلاقاً من تحقيق الأهداف العامة للجامعة والكلية أحد روافدها الهامة ومنها « العمل على تقدم العلم
والمعرفة عن طريق إجراء البحوث العلمية وتشجيعها » .

أتقدم إلى الإخوة الباحثين عامة والمهتمين منهم بمجالات علوم البحار خاصة بهذا الكتيب الذي يحتوي
على عناوين البحوث العلمية التي أنجزتها كلية علوم البحار ضمن النشاطات البحثية للكلية حتى عام
١٤١٥هـ (١٩٩٥م) . ويهدف هذا الكتيب إلى :

- ١- تجميع عناوين هذه البحوث وأسماء الباحثين الذين قاموا بإنجازها والمجلات العلمية المنشورة بها ،
ليسهل على الباحثين الراغبين في الرجوع إلى هذه البحوث الوصول إليها .
- ٢- العمل على إدخال عناوين هذه البحوث ضمن شبكة المعلومات الخليجية التي تساهم فيها المملكة
لخدمة الباحثين في المنطقة الإقليمية عامة .
- ٣- العمل على الوصول إلى إنشاء مركز للمعلومات البحرية يحتوي على جميع المعلومات الخاصة ببيئة
وبيولوجية الكتلة المائية المحيطة بشبه الجزيرة العربية .
- ٤- توفير المعلومات والبيانات البحرية لتكون في متناول المخططين لإنشاء المشاريع الاستثمارية الخاصة
بالثروات البحرية .
- ٥- توفير القياسات والبيانات البحرية الضرورية لإقامة المنشآت الساحلية .

وأدعوا الله أن تعم الفائدة المرجوة من وراء هذا الجهد وأن يجازي القائمين عليه خير الجزاء .

والله ولي التوفيق ،،،

عميد كلية علوم البحار

د. عثمان بن عبده هاشم

● وحدة الدراسات والتطوير بالكلية ●

- | | |
|--------|--|
| رئيسًا | ١ - الدكتور علي سعيد بسحم |
| عضوًا | ٢ - الدكتور سامي عبد العزيز رحيم الدين |
| ، | ٣ - الدكتور أحمد عثمان مال |
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الطبعة الأولى : ١٤١٦ هـ (١٩٩٥ م)

المملكة العربية السعودية

وزارة التعليم العالي

جامعة الملك عبد العزيز

كلية علوم البحار

تقرير عن النشاط البحثي لكلية علوم البحار

إعداد

وحدة الدراسات والتطوير بالكلية

مركز النشر العلمي

جامعة الملك عبد العزيز

ص. ب. ١٥٤٠ - جدة ٢١٤٤١

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