

ISBN: 978-93-88901-10-9



Climate Change, Mangrove & Sustainable Management

Edited by

- Dr. D. L. Bharmal
- Dr. U. L. Dethé
- Dr. N. M. Desai
- Dr. U. R. Pawar
- Dr. V. T. Aparadh



Bhumi Publishing

Sr. No.	Authors	Title	Page No.
1.	Dr. Dilip Kuralapkar	Mangroves: Unique Ecosystems	1
2.	Dr. K. Kathiresan	Mangroves of India : Globally Unique	4
3.	Dr. Vinod Dhargalkar	Mangroves to Combat Climate Change	6
4.	Dr. Subir Ghosh	Climate change and Sustainable Livelihood in Coastal Maharashtra	10
5.	Dr. Bambang Widigdo	Hidden Contribution of Shrimp Farm on Blue Carbon Dynamics	31
6.	Dr. Wah Wah Min	Global distribution of crabs in mangrove forests	37
7.	Abhinav A. Mali and Ajit M. Tiwari	Ecological and Economic Services of Mangroves	39
8.	Aimana Afrin and Dr. C. Hemavathi	Mangrove Ecosystem	40
9.	Ajit M. Tiwari and Abhinav A. Mali	Mumbai's Vanishing Mangroves: An Alarming Situation	41
10.	Dr. Ajit Kumar Jaiswal	Mangroves Support Biodiversity and Fish Nurseries, Reduce Erosion, Protect Coasts, Regulate The Climate and Provide Resources	42
11.	Dr. Alka Inamdr	Mangroves: The Backbone of Ecosystems	43
12.	Amarja Nitin Joshi	Mangrove Resources	44
13.	Amrendra Kumar and Dr. Ningombam Linthoingambi Devi	Aerosol Characterization Over Mangrove Forest Region In India: A Review	45
14.	Anand Billade and Dr. Mahesh Shindikar	Assessment Of Coastal Blue Carbon From The Mangroves Of Greater Mumbai	46
15.	Aniruddha S. Deshpande and S. N. Malode	Status Of Mangroves In India - A Review	47
16.	Dr. Anita M. Katgaye	Service Of Mangroves For The Benefit of People And Ecosystem	48
17.	Dr. Ashok Tuwar	Diversity of Mangroves from Goa, West Cost of India	49
18.	Dr. Asmathunisha. N., Suji. R, and Dr. Kathiresan. K	Antifoliary activity of gold nanoparticles against <i>Rhizophoraapiculatasapl</i> ings.	50
19.	Dr. Bhaurav T. Dangat	Threats to Mangrove	51
20.	Dr. Bagal J. G.	Mangrove Ecosystem: A Biological Basis For Sustainable Development	52
21.	Dr. Baig Mumtaz	Climate Change ,Mangroves And Sustainable Management	53
22.	Dr. Bhawna Sharma	Save Mangroves Save Nature	54
23.	Dr. Chanchal Garg	Biodiversity and Conservation of Mangrove Ecosystem	55

24.	Chirag Narayankar, Sudarshan Charaplae, Vilas Patil, Dr. Ahilya Waghmode and Dr. D.K Gaikwad	Restoration and Management Of Mangrove Ecosystem	56
25.	Dr. Vaidehi Baban Chopade	Mangrove Ecosystem Services and Threats	57
26.	Dr. Dinesh K. Dabhadkar And Dr. Nitin M. Raut	Spiders As Bio-Indicators Of Anthropogenic Stress In Natural And Semi-Natural Habitats In Umarkhed Area Of Yavatmal District: Some Recent Developments	58
27.	Deepali Taramati Dhanji Gada	Adaptations For Salinity Tolerance In Mangroves	59
28.	Dr. (Ms.) Deepali Ravindra Mhapsekar	Significance Of Mangroves	60
29.	Dhananjay Rawool and Rahul Chavan	Mangrove Biodiversity And Threats; Location: Bhandup Pumping Station, Airoli, Mumbai, India.	61
30.	Ms. Dipali Anandrav Malvekar	Mangrove The Most Productive Ecosystem On The Planet	62
31.	Ganesh B. Hedawoo and Naved Patel	Mangrove Vegetation In India	63
32.	Dr. Ganesh Chandrakant Nikalje	Threats, Conservation And Sustainable Use Of Mangrove Ecosystem	64
33.	Gavit. M.G and Dr. Sonawane H.B	Biodiversity In Wild Fauna Of Dang Forest Region In Nashikdistrict, Maharashtra	65
34.	Ghadage Sharada Jagannath and Pawar Madhuri A	Conservation Strategies Of Biodiversity	66
35.	Dr. Jakhi P. and Dr. Janabandhu K.S.	Mangrove - Interesting Group of Plants	67
36.	Jitendra Rajendra Patil	Expedition through Ecological and Economic Importance of Mangroves	68
37.	Dr. Jyothi V. Mallia	e-DNA - Biodiversity Conservation Tool	69
38.	Dr. Priyadarshani Baliram Kamble	Mangroves Serving The Ecosystem	70
39.	More K. C.	A Mini Review On Adaptive Strategies Of Mangroves Against Salinity	71
40.	Dr. Kavita Chahal	Climate Change - Change Yourself	72
41.	Kirubha Pauldas	Mangrove Ecosystem	73
42.	Dr. Krupa Unadkat, Prof. Punita Parikh	Diversity of Avicennia species in Gujarat	74
43.	Kuldeep J. Mhatre	Terrestrial Vertebrates Of Mangroves- A Global Perspective	75.
44.	Dr. Laxmishree Chengala and Dr. Shital Garge	Rapid Urbanization Emerging Threat To Mangrove Ecosystems	76
45.	M. J. Kothari and Devidas Narhar Patil	Expedition Through Ecological And Economic Importance Of Mangroves	77

46.	M. Priyadharshini, M. Prakash, S. Manikandan	Effect Of Vermicompost On Growth And Yield Parameters Of Mungbean Varieties For Organic Agriculture	78
47.	Dr. Madhulika Gupta and Sushreeta Banerjee	Role Of Filamentous Cyanobacteria Isolated From Sundarbans In Environmental Clean Up	79
48.	Mahadik Shaila Shivaji	Mangroves Food Web	80
49.	Dr. Mahuya Mukhopadhyay and Ranjabati Mitra	Isolation Of Endophytes From <i>Phoenix paludosa</i> (Hetal) Of Sundarban Biosphere Reserve And To Explore Their Potentials For Bioactive Compounds	81
50.	Dr. Makarand Mohanrao Aitawade	Mangrove Forest: Its Biodiversity In India & Importance	82
51.	Dr. Nagane Pratishtha N. and Dr. Gaikwad Dattatraya K.	GC-MS Analysis Of Bioactive Components Of Mangrove	83
52.	M. B. Kadel, and Dr. S. S. Rokade	Mangroves Can Help To Reach Our Sustainable Development Goals...(Sdg)	84
53.	Dr. Patkar Namdev Babruvan	Threats And Conservation Strategies For Mangroves	85
54.	Neenu M G	Types of Mangroves	86
55.	Dr. Nitin Manohar Valanju	Threats To The Ocean Due To The Loss Of Mangrove Ecosystem	87
56.	Dr. Nutanvarsha Deshmukh	Mangrove Ecosystem	88
57.	Pallavi V. Singh	Highlights On Role Of Mangroves For Ecosystem Stability	89
58.	Paradesi Anjaneyulu	Importance Of Mangroves	90
59.	Dr. Paras Parmeshwar Jadhav, Dr. D. K. Gaikwad, Laxman Tari, N. S. Daptardar	Mangrove Restoration Camp At Village Taramumbari Tal. Devgad . Dist. Sindhudurg	91
60.	Parul Maurya and Dr. Rina Kumari	Mangrove Forest: Benefits, Threats, Carbon Sequestration Potential, And Management Approaches	92
61.	Dr. Patel Alpa K.	Mangrove Biodiversity And Ecosystem Functions	93
62.	Dr. Payal Rane - Acharekar, Dr. Ambika Joshi, Dr. Nitesh Joshi	Mangroves: A Bane Or A Boon?	94
63.	Pooja Parkar and Dr. Ganesh Nikalje	Isolation And Identification Of Fungal Endophytes From A Mangrove: - <i>Sonneratia Apetala</i> L.	95
64.	Dr. Prachi Kshirsagar	Mangrove: A Unique Ecosystem	96
65.	Ms. D. Pranita Rao, Dr. (Mrs.) D. Meena Rao	Blue Carbon Farming Through Mangrove Ecosystem	97

66.	Prasanna S. Joshi	Nature-Based Solutions And Human Well-Being	98
67.	Priya. S. and Dr. Shanmuga Priya.R	Biotechnological Potential Of Mangrove Fungi	99
68.	Dr. Punita Parikh and Unadkat Krupa	Pollution Load Destroys Mangrove Ecosystem In And Around The World	100
69.	Mr. Rahul Wakde	Threats of Mangrove Ecosystem	101
70.	Dr. Vidya A Patil	Mangrove: Key To The Coast	102
71.	Dr. Vidya Patankar	Anatomy and Ecology Of Mangrove Plant <i>Sonneratiaapetala</i>	103
72.	Dr. Jai Godheja	Living On The Edge: Current Status And Threats On Mangroves	104
73.	Dr. Jai Knox	Threats To Mangroves	105
74.	Dr. Ishwari Nitesh Mehta	Mangrove Biodiversity: Yesterday and Today A Statistical Study	106
75.	Dr. PratimaKadam	Role of Mangroves	107
76.	Dr. Rajeshwari P.	A Profile Of Mangrove Ecosystem And Its Restoration	108
77.	Dr. Rashmi, S.	Mangrove Vegetation In Karnataka: An Overview	109
78.	Dr. Rathi M. A.	Environmental Impact Of Mangroves Destruction	110
79.	Dr. Ritesh Kumar Singhal	Save Trees Save Life.	111
80.	Vishal R. Kamble	Tapping the Potential Of Mangrove Forest In Bee Keeping: An Income Generating & Mangrove Conservation Model For India	112
81.	Dr.S.Jenifer	Indian Diversity-Mangroves Ecosystem	113
82.	Dr. S. M. Deosthale	Green Audit: A Tool For The Study Of Climate Change	114
83.	Dr. Sachin N Tayade	Birds (Anseriformes: Anatidae) of Mangrove Forest	115
84.	Salama Suhel Naziri	<i>Mangroves Ecosystem</i>	116
85.	Dr. Sampada Patharkar and Dr. G. B. Hedawoo	Mangrove: It Is A Life Of Flora And Fauna	117

86.	Dr. Sandhya R. Moghe and Nishant V. Burade	Role of Phytoremediation By Mangroves Plants	118
87.	Dr. Selvarasuvasuki Manikandan, Dr. Priyadarshini Manikandan, Dr. Ganapathy Murugan Alagu Lakshmanan	DNA Sequencing Analysis For The Identification Of <i>Plectranthusamboinicus</i> (benth.) Species	119
88.	Sensei Surendra Sawardekar	Role of Mahim Creek Mangrove- Wetland Diversity	120
89.	Shailaja Puneeth Palan	Mangroves: A Symbiotic Link	121
90.	Shakila Papalal Maldar	The Importance Of Mangrove Wetlands ,Its Pollution,Threats	122
91.	Dr. Mrs. Sharada K. Ulhe-Deshmukh	Conservation & Management Of Aromatic Plants	123
92.	Dr. Shilpa Khairmode	Threats To The Mangrove Ecosystem And Its Conservation	124
93.	Dr. Shilpa Jagtap	Mangrove Biodiversity In India	125
94.	Miss. Shinde Madhumati Yashwant	Present State And Future Of The World's Mangrove Forests"-Blue Carbon; Mangrove Forests Can Help Fight The Effects Of Climate Change	126
95.	Dr. Shital Gharge and Dr. Laxmishree Chengala	Diversity of Mangrove Species In East Coast Of India	127
96.	Dr. Shital S. Taware	Impact of Anthropogenic Activity On Mangroove And coastal ecosystem	128
97.	Mr. Shivdas R. Aher	Threats Drivers Of Mangrove Loss	129
98.	Shreyasi Biswas	Biodegradation Of Polycyclic Aromatic Hydrocarbon By Endophytic Bacteria Of Mangrove	130
99.	ShubhangiRajguruPagare	Threats To Mangrove Ecosystem In Thane District ,M.S; India	131
100.	Dr. Siddhesh Ramesh Patil	Study of ecotourism management with reference to mangrove conservation in Versova region, mumbai	132
101.	Sudipta Paul Bhattacharya and	A Study On The Isolation Of Biofilm Producing	133

	Debolila Bhattacharjee	Microorganisms And Characterization Of Their Extracellular Polymeric Substances (Eps) From Sundarban Mangrove Area	
102.	Sujeet S. jadhav	Importance Of Mangroves And Its Threats	134
103.	Dr. Swarupa Agnihotri and Dr. VijayaNikam	A Short Review On Mangrove Biodiversity	135
104.	Sweta D. Kedari & Dr. Ganesh C. Nikalje	<i>Threats to Mangroves Ecosystem</i>	136
105.	Dr. Urmila Sarkar	Impact of Mangrove Wetland Diversity	137
106.	Vandna Devi and Bhawana Pathak	Ecological Assessment Of Mangroves: A Case Study From Gulf Of Khambhat, Gujarat	138
107.	Vinars Dawane and Dr. Bhawana Pathak	Appliance of High Performance Thin Layer Chromatography In Mangrove Herbal Technology	139
108.	Dr. SuchitaWasudevDighe	Mangrove, Conservation And Importance	140
109.	Dr. Swapnesh S. Rangnekar	Avian Diversity Of Sewri Mangroves Park, Mumbai, India	141
110.	Dr. V.B. Sonawnae	Mangroves Ecosystem Its Threat And Conservation	142
111.	Snehal S. Butle	Nature-Based Solutions for Ecosystem-Related Approaches	143
112.	Dr. Soma Pal Saha	Microbial Biodiversity In Sediment Of Sundarban Mangrove Area	144
113.	Shreya Patel and Punita Parikh	Mangroves: The Tree of Life	145
114.	Dr. Rajendra A. Lavate, Mallappa B. Sajjan, Dipak A. Kumbhar	Mangroves of Maharashtra Coast	146
115.	Rahul Pawar and Dr. N. K.Waghmare	Distribution of Mangrove in India and their benefits	147
116.	Priyanka Kumari and Bhawana Pathak	Assessment of plant diversity, heavy metal accumulation and sustainable utilization of Mangroves forest of Westsouthern	148

		part of the Gujarat	
117.	Supriya Vaish and Bhawana Pathak	Decolorization of methyl red dye using <i>Avicennia marina</i> bark as biosorbent Pathak	149
118.	Sobiyana Arif Momin	Threats to Mangrove Ecosystem	150
119.	Dr. J. T. Jadhav	Mangroves Biodiversity - The Coastal Ecosystem	151
120.	Dr. Padmavathi S. Rao	My critical observation of Mangrove Forest of Andaman Island	152
121.	Dr. Pallavi Purushottamrao Ulhe	Positive Effect Of Climate Change On Animals During COVID-19 Lockdown	153
122.	Dr. R. Mary Suja	Manakudy Mangrove Ecosystem Of Kanyakumari District, Tamil Nadu India	154
123.	Dr. R. Shanmug Priya, Ms. Priya S., Mrs. D.R. Darjily	Insights into Mangrove Ecosystem-An Overview	155
124.	Dr. S.D. Shaikh	Studies of Some Coastal Ecosystems Of Western Maharashtra (India)	156
125.	Dr. Sunita H. Jadhav	Mangrove Ecosystem: Importance	157
126.	Dr. Surajit Majumder, and Sulogna Banerjee	A study on variation of physico-chemical and hydrobiological parameters with respect to environmental and anthropogenic factors in a high, moderate and less productive pond of Bankura district of West Bengal	158
127.	Hemavathi C. and Aimana Afrin	Mangroves Conservation And Ecosystem Services	159
128.	Meena S. Rao and Komal A. Kukreja	Study Of Threats To Mangroves Ecosystems	160
129.	Ms. Darjily	Role of Sulphur Oxidizing Bacteria In The Mangrove Ecosystem	161
130.	Ms. Hemangi Gavit	Mangrove Forest Covers in India and Need for Their Conservation	162
131.	Prasanthi Inampudi	Joining Hands To Conserve Mangroves	163
132.	Sophia. D	Mangroves Ecosystem - Its Importance , Threats And Future Implementations To Conserve It	164
133.	Poonam Panaskar and Mansi Patil	Anthropogenic threats to Mangroves	165
134.	Nanda Jagtap and	Study of oil degrading bacteria isolates from	166

ISBN: 978-93-88901-10-9

	Sandesh Jagdale	Anjarle Creek Tehsil- Dapoli, Dist- Ratnagiri (MS)	
135.	Dr. Meena S. Chaudhari	Mangroves Ecosystem	167
136.	Dr. Kirtane Sushama Anandrao	Mangroves: The Boon of nature	168
137.	Krishna Gandhi And Punita Parikh	Threats to mangroves and climate change	169



Climate Change, Mangrove & Sustainable Management

ISBN: 978-93-88901-10-9



Title

Mangrove Biodiversity: Yesterday and Today A Statistical Study

Authors
Affiliation

Mrs. Ishwari Nitesh Mehta

Department of Biotechnology, Sonopant Dandekar Shikshan Mandali (SDSM)
College, Palghar

Email
Mobile

ishwarishinde@gmail.com
+91 9833825453

Abstract

Mangroves are shrubs or small trees that grow in coastal saline or brackish water. Mangrove swamps (mangals) are found in tropical and subtropical tidal areas. Areas where mangroves occur include estuaries and marine shorelines. Mangrove plants require a number of physiological adaptations to overcome the problems of low environmental oxygen levels, high salinity and frequent tidal flooding. So some are shorelines, mangrove tree species show distinct zonation. About 110 species are considered "mangroves", in the sense of being a tree that grows in such a saline swamps (gen. Rhizospora). The ecosystem that these trees create provides a home (habitat) for a great variety of other species, including as many as 174 species of marine megafauna. Mangrove forests make up one of the most productive and biologically diverse ecosystems on the planet. It is found that due to the increase in global warming and pollution the diversity of mangroves and the diverse ecosystem hold by mangroves had been decreased to a large extent both in India and around the globe. Statistically it is found that in 1980's the area of the world covered was 18.79 million hec that had decreased to 15.23 million hec in 2005. As In case of India even the mangrove forest has decreased due to afforestation, pollution from 1800 sq.km in 1986 to 1600 sq.km in 2015. Proper sustainable management for the mangrove conversation has to be brought in practice so as to save the ecosystem from getting depleted. It's necessary to save the biodiversity of the mangroves so as to save the ecological biodiversity.

Poster

