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Vol. 4 No. 5

May 2014



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May 2014

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V. Edwin Joseph

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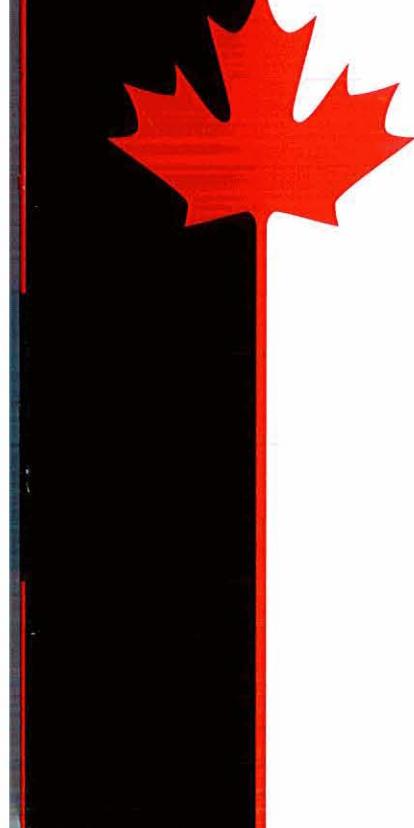
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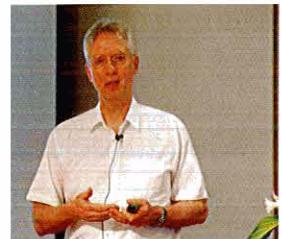


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management to achieve better productivity. These practices are outlined for easy reference.



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prevent the mislabelling of products and avoid the loss to the importers and consumers.



through equitable sharing of wealth.

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3. Apparent Historical Consumption and Future Demand for Fishand Fishery Products- Exploratory Calculations.
4. Aquaculture : Vol.420-421 S1. Jan '14
5. Aquaculture : Vol.424-425 Mar '14
6. Aquaculture Asia : Vol.18 (4) Oct-Dec '13
7. Aquaculture Research : Vol. 45 (4) Mar '14
8. Aquaculture Research : Vol. 45 (5) Apr '14
9. Biological Bulletin : Vol. 226 (1) Feb '14
10. Biospectrum : Vol.12 (4) Apr '14
11. Bulletin of Japanese Society of Fisheries Oceanography : Vol. 78 (1) 2014
12. Canadian Journal of Agricultural Economics : Vol. 61 (4) Dec '13
13. Canadian Journal of Agricultural Economics : Vol. 61 (3) Sep '13
14. Contribution of Fish Processing to food Security - Version3. International Conference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December1995. Govt. of Japan & FAO.
15. Crustaceana : Vol. 87 (2) Feb '14
16. Culturally-based conflicts in the use of living marine resources and suggestions for resolving or mitigating such conflicts.International Conference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December 1995. Govt. of Japan & FAO.
17. Current Science : Vol.106 (8) Apr '14
18. Current Science : Vol.106 (9) May '14
19. Daily Weather Report - Kerala and Lakshadweep : Jan 2014
20. Data of Oceanographic Observations and Exploratory Fishings : No. 39, Feb '14
21. Demand and Supply of Fish and Fish Products in Selected areas of the World perspectives and Implications for food security. International Conference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December 1995. Govt. of Japan & FAO.
22. Demand and supply of fish and fish products in selected areas of the world - Perspectives and implications for food security. International Conference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December 1995. Govt. of Japan & FAO
23. Economic and Political Weekly : Vol. 49 (16) Apr '14
24. Economic and Political Weekly : Vol. 49 (18) May '14
25. Economic and Political Weekly : Vol. 49 (19) May '14
26. Economic and Political Weekly : Vol. 49 (20) May '14
27. European Commission : research eu : No. 31, Apr '14

28. Executive Summaries of the Technical Papers prepared for the Conference. International Conference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December 1995. Govt. of Japan & FAO.
29. FAO Fisheries Technical Paper No. 449 : Geographic information systems in fisheries management and planning -Technical Manual
30. Fish and Fisheries : Vol. 15 (1) Mar '14
31. Fish Farming International : Iss. 3, Mar '14
32. Fish Farming International : Iss. 4, Apr '14
33. Fisheries : Vol.39 (2) Feb '14
34. Fisheries Management and Ecology : Vol. 21 (2) Apr '14
35. Fishery Technology : Vol. 51 (2) Apr '14
36. Fishing Chimes : Vol. 33 (12) Mar '14
37. Fishing News International : Vol.53 (4) Apr '14
38. Fishing News International : Vol.53 (5) May '14
39. Global Aquaculture Advocate : Vol.17 (2) Mar/Apr '14
40. Growing Fish in Pen Systems: Status of Caribbean Coral Reefs after Bleaching and Hurricanes in 2005
41. Half Yearly Progress (April-September 2013) NAIP Component-1: ICAR as the Catalyzing Agent for Management of Change in the Indian NARS
42. Handbook of Mangroves in the Philippines - Panay
43. Hornbill : Jan-Mar '14
44. ICAR News : Vol.20 (1) Jan- Mar '14
45. ICAR Reporter : Jan-Mar '14
46. Impacts of predator-prey relationships on harvesting strategies and management. International Conference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December 1995. Govt. of Japan & FAO.
47. Inland Capture Fisheries and Enhancement: Status, Constraints and Prospects for Food Security. International Conference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December 1995. Govt. of Japan & FAO.
48. Indian Journal of Agricultural Marketing : Vol. 27 (3) (Conf.Sp.) Sep-Dec '13
49. Indian Journal of Animal Sciences : Vol. 84 (4) Apr '14
50. Indian Journal of Experimental Biology : Vol. 52 (5) May '14
51. Indian Journal of Geo-Marine Sciences : Vol. 43 (3) Mar '14
52. Indian Ocean Turtle Newsletter : No. 19, Jan '14
53. Infofish International : No. 2 Mar/Apr '14
54. International Conference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December 1995. Govt. of Japan & FAO.
55. Journal of Biosciences: Vol. 39 (2) Apr '14
56. Journal of Crustacean Biology : Vol .34 (2) Mar'14
57. Journal of Fish Biology : Vol. 84 (3) Mar '14
58. Journal of Fish Biology : Vol. 84 (4) Apr '14
59. Journal of Fish Diseases : Vol. 37 (4) Apr '14
60. Journal of Fish Diseases : Vol. 37 (5) May '14

61. Journal of Marine Biological Association of India : Vol. 55 (2) Jul -Dec'13
62. Journal of Marine Biological Association of the United Kingdom : Vol. 94 (3) May '14
63. Journal of Shellfish Research : Vol.32 (1) Apr '13
64. Journal of Shellfish Research : Vol.32 (2) Aug '13
65. Journal of Shellfish Research : Vol.32 (3) Dec '13
66. Journal of World Aquaculture Society : Vol. 44 (6) Dec '13
67. Journal of World Aquaculture Society : Vol. 45 (1) Feb '14
68. Journal of World Aquaculture Society : Vol. 45 (2) Apr '14
69. Kasetsart University Fisheries Research Bulletin : Vol. 37 (3) Sep-Dec '13
70. Molluscan Research : Vol. 34 (1) Feb '14
71. Marine and Coastal Area Hatchery Enhancement Programmes: Food Security and Conservation of Biological Diversity.
72. MPEDA Newsletter : Vol.02 (1) Apr '14
73. National Geographic : Vol.1 (10) May '14
74. Nature : Vol.507 (7491) Mar '14
75. Nature : Vol.507 (7492) Mar '14
76. Nature : Vol.507 (7493) Mar '14
77. Nature : Vol.508 (7494) Apr '14
78. Nature : Vol.508 (7495) Apr '14
79. Nature : Vol.508 (7496) Apr '14
80. Nature : Vol.508 (7497) Apr '14
81. North American Journal of Aquaculture : Vol.76 (1) Jan'14
82. North American Journal of Fisheries Management: Vol. 34 (1) Feb'14
83. Proceedings of Academy of Natural Sciences of Philadelphia : No. 163 Mar '14
84. Proceedings of Indian National Science Academy : Vol. 80 (1) Mar '14
85. Records of the Australian Museum : Vol.65 (1) Jun '13
86. Records of the Australian Museum : Vol.65 (2) Jul '13
87. Records of the Australian Museum : Vol.65 (3) Dec '13
88. Records of the Australian Museum : Vol.66 (1) Feb '14
89. Resonance : Vol. 19 (5) May '14
90. Safeguarding future fish supplies: key policy issues and measures. International Conference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December 1995. Govt. of Japan & FAO.
91. Scientific Report of Hokkaido Fisheries Research Institutes : No. 85, Mar '14
92. Swamysnews : No. 4, Apr '14
93. Swamysnews : No. 5, May '14
94. Technology in the Capture Fisheries. InternationalConference on Sustainable Contribution of Fisheries to Food Security. Kyoto, Japan, 4-9 December 1995. Govt. of Japan & FAO.

