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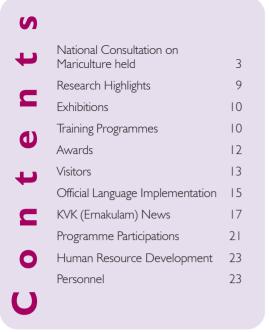
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Hatchery produced seed of Pink Ear Emperor

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Published by

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DIRECTOR SPEAKS



Warm greetings to all.

ur institute which has completed 70 years of service to the nation can rightly feel proud of its accomplishments during the quarter. The institute made its pioneering foray into breeding and seed production of several marine finfishes of high commercial value, a few years ago. Presently sustained large scale seed production technology is available for several species like cobia, silver pompano and orange grouper. In recognition of the institute's achievements. DADF has announced a substantial funding support to

establish the Brood Banks of cobia and silver pompano. This will facilitate supply of quality fish seeds to the marine fish farmers and help to boost marine fish production through mariculture. In tune with the institute's mandate for promoting sustainable marine fish production, an Indian Marine Fisheries Code complying with international instruments like the FAO-CCRF for management of fisheries resources has been developed by the scientists of ICAR-CMFRI jointly with ICAR-CIFT. It is expected this will suitably guide the fisheries management bodies at the state and central levels in the designing of appropriate guidelines and interventions required in the sector. Various initiatives like the development of a Fishery Improvement Plan for the skipjack tuna of Lakshadweep, sea ranching of green tiger shrimp in the Palk Bay and conducting skill development programmes for the identified stakeholders in the marine fisheries sector have been carried out successfully. It is hoped that these initiatives shall lead to even better and bigger things in the days to come.

> A. Gopalakrishnan Director

About ICAR-CMFRI

The Central Marine Fisheries Research Institute, Kochi, is a premier research Institute under the Indian Council of Agricultural Research, devoted to research and training in marine fisheries and mariculture.

ICAR-CMFRI has three Regional Centres viz., Mandapam Camp, Visakhapatnam and Veraval and eight Research Centres located along the Indian coastline, catering to the marine fishery policy needs of all maritime states of the country.

National Working Groups formed in ICAR-CMFRI

Based on the decisions taken at the 24th Institute Research Committee meeting of the institute, 43 resource based, National Fish Stock Assessment Working Groups (I-IV) were formed. Besides, 28 resource/theme based National Working Groups (V- IX) were also constituted. The Stock Assessment NWGs would focus on validating regional population parameters and carrying out the stock assessment of finfishes and shellfishes. The resource/theme based NWGs would focus on being a repository of all available information on the subject. All NWGs will be responsible for providing requisite information sought by stakeholders and policy making bodies.

Resource / Thematic Area	National Working Group (NWG)	NWG Leader
Fi	sh Stock Assessment Working Groups	
I. Pelagic fishery resources		
Sardines (<i>Sardinella longiceps,</i> <i>Sardinella gibbosa</i>)	Dr. K. M. Rajesh, Dr. U. Ganga	Dr. M. Sivadas
Mackerel (Rastrelliger kanagurta)	Dr. C. Anulekshmi, Dr. A. Margaret Muthu Rathinam	Dr. U. Ganga
Tunas (all species)	Dr. E. M. Abdussamad, Dr. Shubhadeep Ghosh	Dr. Prathibha Rohit
Billfishes (<i>Istiophorus platypterus, Istiompax indica</i>)	Dr. M. Sivadas, Dr. U. Ganga	Dr. Shubhadeep Ghosh
Seerfishes (Scomberomorus commerson, Scomberomorus guttatus)	Mr. K. Mohammed Koya, Dr. M. Sivadas	Mr. K. P. Said Koya
Cobia (<i>Rachycentron canadum</i>)	Mr. K. Mohammed Koya, Dr. Prathibha Rohit	Dr. A. Margaret Muthu Rathinam
Carangids (Caranx ignobilis, Selar crumenophthalmus, Decapterus russelli, Megalaspis cordyla, Parastromateus niger)	Dr. M. Sivadas, Dr. K. M. Rajesh	Dr. E. M. Abdussamad
Ribbonfishes (<i>Trichiurus lepturus</i>)	Shri. K. Mohammed Koya, Dr. U. Ganga	Dr. K. M. Rajesh
Anchovies (Stolephorus devisi, Stolephorus waitei, Stolephorus indicus, Coilia dussumieri)	Dr. Prathibha Rohit, Shri K.P. Said Koya	Dr. C. Anulekshmi
Bombayduck (<i>Harpadon nehereus</i>)	Dr. C. Anulekshmi, Dr. Shubhadeep Ghosh	Mr. K. Mohammed Koya
Mahi-mahi (<i>Coryphaena hippurus</i>)	Dr. K. M. Rajesh, Mr. K. Mohammed Koya Dr. Prathibha Rohit	Dr. E. M. Abdussamad
II. Demersal fishery resources		
Elasmobranchs	Dr. Sujitha Thomas, Dr. P. P. Manojkumar Dr. Rekha J. Nair, Dr. T. M. Najmudeen Ms. Muktha Menon, Dr. Swatipriyanka Sen Dr. K. V. Akhilesh	Dr. Shoba Joe Kizhakudan
Groupers	Dr. P. P. Manojkumar, Dr. G. B. Purushottama Dr. Shoba Joe Kizhakudan, Ms. Muktha Menon Dr. Swatipriyanka Sen, Mr. Ambarish P. Gop	Dr. Rekha J. Nair
Snappers	Dr. Shoba Joe Kizhakudan, Dr. Rekha J. Nair Dr. P. P. Manojkumar, Dr. Swatipriyanka Sen Ms. Livi Wilson	Ms. Muktha Menon
Pigface breams	Dr. Shoba Joe Kizhakudan, Dr. P. P. Manojkumar Ms. Muktha Menon, Dr. Swatipriyanka Sen	Dr. T. M. Najmudeen
Threadfin breams	Dr. P. P. Manojkumar, Dr. Sujitha Thomas Dr. Shoba Joe Kizhakudan, Ms. Muktha Menon Dr. G. B. Purushottama, Dr. Swatipriyanka Sen Dr. K. V. Akhilesh, Dr. Mahesh V.	Dr. P. U. Zacharia
Sciaenids	Dr. Mahesh V., Dr. Rekha J. Nair Dr. Shoba Joe Kizhakudan, Dr. Sujitha Thomas Dr. G. B. Purushottama, Ms. Muktha Menon Dr. Swatipriyanka Sen	Dr. P. P. Manojkumar
Silverbellies	Dr. Rekha J. Nair, Ms. Muktha Menon Dr. P. P. Manojkumar, Ms. Remya L.	Dr. Shoba Joe Kizhakudan
Lizardfish	Ms. Muktha Menon, Dr. Shoba Joe Kizhakudan Dr. Sujitha Thomas, Dr. G. B. Purushottama, Dr. P. P. Manojkumar, Dr. Swatipriyanka Sen Dr. K. V. Akhilesh, Ms. Remya L. Mr. Ambarish P. Gop, Dr. V. Mahesh	Dr. T. M. Najmudeen
Goatfish	Dr. Shoba Joe Kizhakudan, Dr. P. U. Zacharia Dr. Swatipriyanka Sen	Ms. Muktha Menon
Flatfish	Dr. Rekha J. Nair, Dr. Mahesh V. Dr. Shoba Joe Kizhakudan, Dr. Sujitha Thomas Dr. Swatipriyanka Sen, Ms. Muktha Menon Dr. G. B. Purushottama	Dr. P. P. Manojkumar

Resource / Thematic Area	National Working Group (NWG)	NWG Leader
Catfish	Dr. Rekha J. Nair, Dr. Shoba Joe Kizhakudan Dr. Sujitha Thomas, Dr. K. V. Akhilesh Ms. Muktha Menon, Dr. Swatipriyanka Sen	Dr. G. B. Purushottama
Pomfrets	Dr. T. M. Najmudeen, Dr. Swatipriyanka Sen Dr. G. B. Purushottama, Dr. Shoba Joe Kizhakudan Ms. Muktha Menon, Dr. K. V. Akhilesh	Dr. Sujitha Thomas
Whitefish	Dr. Shoba Joe Kizhakudan, Dr. Swatipriyanka Sen Dr. T. M. Najmudeen, Dr. K. V. Akhilesh Dr. Mahesh V.	Dr. Sujitha Thomas
Threadfins	Dr. G. B. Purushottama, Ms. Muktha Menon	Dr. Swatipriyanka Sen
Priacanthids	Dr. P. U. Zacharia, Dr. Sujitha Thomas Dr. Swatipriyanka Sen, Dr. K. V. Akhilesh	Ms. Livi Wilson
Eels	Dr. T. M. Najmudeen, Dr. P. P. Manojkumar Dr. Sujitha Thomas, Dr. G. B. Purushottama Dr. Shoba Joe Kizhakudan	Dr. Swatipriyanka Sen
Flatheads	Dr. P. U. Zacharia, Dr. Sujitha Thomas	Ms. Muktha Menon
Balistids	Dr. Shoba Joe Kizhakudan, Ms. Muktha Menon Mr. Ambarish P. Gop, Ms. Livi Wilson	Dr. K. V. Akhilesh
III. Crustacean fishery resources		
Kiddi Shrimp (<i>Parapenaeopsis stylifera</i>)	Dr. Gyanaranjan Dash, Dr. R. Ratheesh Kumar Dr. A. P. Dineshbabu, Dr. S. Lakshmi Pillai Ms. Indira Divipala	Dr. P. T. Sarada
Speckled Shrimp (<i>Metapenaeus monoceros</i>)	Dr. Gyanaranjan Dash, Dr. R. Ratheesh Kumar Dr. K. N. Saleela, Dr. P. T. Sarada Dr. S. Lakshmi Pillai, Ms. Indira Divipala	Dr. A. P. Dineshbabu
Flower Tail Prawn / Thelly Shrimp / Kadal Shrimp (<i>Metapenaeus dobsoni</i>)	Dr. Gyanaranjan Dash, Dr. R. Ratheesh Kumar Dr. A. P. Dineshbabu, Dr. P. T. Sarada Ms. Indira Divipala	Dr. S. Lakshmi Pillai
Indian White Prawn (Fenneropenaeus indicus)	Dr. R. Ratheesh Kumar, Dr. A. P. Dineshbabu Dr. S. Lakshmi Pillai, Dr. K. N. Saleela Dr. P. T. Sarada Ms. Indira Divipala	Dr. G. Maheswarudu
Green Tiger Prawn (<i>Penaeus semisulcatus</i>)	Dr. R. Ratheesh Kumar, Dr. G. Maheswarudu Dr. P. T. Sarada, Mr. M. Rajkumar	Dr. Gyanaranjan Dash
Shrimp (<i>Plesionika quasigrandis</i>) Humpback Nylon Shrimp (<i>Heterocarpus gibbosus</i>)	Dr. P. T. Sarada, Ms. Indira Divipala	Dr. Rekha Devi Chakraborty
Flower crab/ Blue Swimmer crab (Portunus pelagicus)	Dr. Gyanaranjan Dash, Dr. R. Ratheesh Kumar Dr. A. P. Dineshbabu, Dr. P. T. Sarada Ms. Indira Divipala, Mr. M. Rajkumar	Dr. Josileen Jose
Blood Spotted Crab (Portunus sanguinolentus)	Dr. Gyanaranjan Dash, Dr. R. Ratheesh Kumar Dr. A. P. Dineshbabu, Dr. P. T. Sarada Ms. Indira Divipala	Dr. Josileen Jose
Crucifix Crab (<i>Charybdis feriatus</i>)	Dr. R. Ratheesh Kumar, Dr. Josileen Jose	Dr. A. P. Dineshbabu
Sand Lobster (<i>Thenus unimaculatus</i>)	Dr. P. T. Sarada, Ms. Indira Divipala	Dr. Rekha Devi Chakraborty
Spiny Lobster (<i>Panulirus polyphagus</i>)	Dr. R. Ratheesh Kumar	Dr. Gyanaranjan Dash
IV. Molluscan fishery resources		
Cephalopods	Dr. P. K. Asokan, Dr. Geetha Sasikumar Dr. M. K. Anil	Dr. K. S. Mohamed
Bivalves	Dr. P. K. Asokan, Dr. I. Jagadis Dr. M. K. Anil, Dr. R. Vidya	Dr. Geetha Sasikumar
Gastropods	Dr. V. Venkatesan, Ms. Kavitha, Ms. Jasmine	Dr. I. Jagadis
	source/Theme based Working Groups	
V. Fishery Environment Management	Division	
Seaweeds	Dr. Reeta Jayasankar, Dr. V. V. Singh Mr. Sukhdhanae Kapil, Mr. Thirumalaiselvan Dr. P. S. Asha, Mr. Loveson L. Edward, Dr. B. Johnso	Dr. P. Kaladharan on
Seagrasses	Dr. R. Jeyabaskaran, Mr. Thirumalaiselvan, Dr. P. S. Asha, Dr. Bindu Sulochanan	Dr. P. Kaladharan
Mangroves	Dr. V. Kripa, Dr. P. Kaladharan, Dr. Bindu Sulochanan Dr. P. S. Asha, Dr. Reeta Jayasankar, Dr. V. V. Singh, Dr. R. Jeyabaskaran, Dr. Loveson L. Edward Mrs. Ramya Abhijith	Dr. D. Prema

Resource / Thematic Area	National Working Group (NWG)	NWG Leader		
Marine mammals	Dr. V. Kripa, Mr. Kapil Sukhdhanae, Mr. Loveson L. Edward, Dr. Bindu Sulochanan, Dr. V. V. Singh	Dr. R. Jeyabaskaran		
Sea birds	Dr. Vijayakumaran K., Dr. D. Prema Mr. Kapil Sukhdhanae Dr. Bindu Sulochanan, Mr. Thirumalaiselvan Mrs. Ramya Abhijith, Mr. Loveson L. Edward	Dr. R. Jeyabaskaran		
VI. Marine Biodiversity Division				
Sponges Hard corals	Dr. P. Laxmilatha, Dr. K. S. Sobhana, Dr. Vinod K. Dr. K. S. Sobhana, Dr. Miriam Paul Sreeram	Dr. L. Renjith		
Hard corais	Dr. K. S. Sobhana, Dr. Milliam Paul Sreeram Dr. Sreenath K. R.	Dr. S. Jasmine		
Soft corals	Dr. Jasmine S., Dr. Pralaya Ranjan Behera Mr. Tarachand Kumawat	Dr. K. R. Sreenath		
Jelly fish and other Cnidarians	Dr. Saravanan R., Dr. L. Renjith Ms. Divya Viswambharan	Dr. Miriam Paul Sreeram		
Sea cucumber and other Echinoderms	Dr. Laxmilatha P., Ms. Divya Viswambharan Mr. Tarachand Kumawat, Dr. P. S. Asha	Dr. R. Saravanan		
Minor invertebrate phyla	Dr. Ramkumar S., Dr. Pralaya Ranjan Behera Mr. Tarachand Kumawat	Dr. Molly Varghese		
Sea horse and other Syngnathidae	Dr. K. R. Sreenath, Dr. L. Renjith	Dr. K. Vinod		
VII. Marine Biotechnology Division Marine micro algae	Dr. Kajal Chakraborty, Dr. N. S. Jeena	Dr. P. Vijayagopal		
	Dr. Srinivasa Raghavan.V., Ms. Anusree Nair	,, , , ,		
Marine microbes	Dr. M. A. Pradeep, Dr. Sumithra T. G. Dr. N. K. Sanil, Mrs. Reshma K. J., Ms. Saloni Shivam, Dr. M. P. Paulton, Ms. Saima Rehman, Mr. Kurva Raghu Ramudu	Dr. S.R. Krupesha Sharma		
Genetics	Dr. Srinivasa Raghavan V., Dr. N. S. Jeena Dr. A. Gopalakrishnan	Dr. Sandhya Sukumaran		
Genomics	Mr. M. Sankar, Dr. M. Sakthivel Dr. V. Srinivasa Raghavan, Dr. N. S. Jeena, Dr. M. P. Paulton, Dr. A. Gopalakrishnan	Dr. M. A. Pradeep		
Marine bioprospecting	Dr. Kajal Chakraborty, Dr. M.A. Pradeep	Dr. Kajal Chakraborty		
Tissue Culture of Marine Organisms	Dr. K. S. Sobhana, Dr. C.P. Suja, Dr. Vidya Jayasankar, Dr. V. Srinivasa Raghavan	Dr. K. S. Sobhana		
VIII. Mariculture Division		D 1/ 1/4 II		
Marine ornamental fish farming	Dr. Boby Ignatius, Dr. A. K. Abdul Nazar Dr. M. K. Anil, Dr. K. K. Anikuttan, Mr. N. Rajesh	Dr. K. Madhu		
Marine copepods culture	Dr. Biji Xavier, Dr. Imelda Joseph, Dr. Jayasree Loka Dr. K. K.Anikuttan, Mr. N. Rajesh	Dr. B. Santhosh		
Marine rotifers culture	Dr. Ritesh Ranjan, Dr. B. Santhosh Dr. Jayasree Loka, Dr. Boby Ignatius, Mr. N. Rajesh	Dr. Rema Madhu		
Micro Algal culture	Dr. Rema Madhu, Dr. Biji Xavier, Dr. K. K. Anikuttan Dr. C. Kalidas, Dr. Jayasree Loka, Dr. Ritesh Ranjan	Dr. Shoji Joseph		
Marine finfish breeding	Dr. R. Jayakumar, Dr. K. Madhu, Dr. Ritesh Ranjan, Dr. M. K. Anil, Ms. R. Gomathi, Mr. Ambarish P. Gop, Dr. Sekar Megarajan, Dr. G. Tamilmani, Dr. M. Sakthivel, Dr. T. Senthil Murugan, Dr. P. P. Suresh Babu	Dr. A. K. Abdul Nazar		
Marine fish farming	Dr. D. Divu, Dr. Jayasree Loka, Dr. Shoji Joseph, Dr. B. Santhosh, Dr. Joe K. Kizhakudan, Dr. Sekar Megarajan, Dr. M. Sakthivel, Dr. R. Jayakum Dr. A.P. Dineshbabu , Dr. Sujitha Thomas	Dr. Imelda Joseph nar,		
IX. Socio Economic Evaluation and Technology Transfer Division				
Impact assessment of Fisheries Research – Estimation of financial worth of the Institute	Dr. Shyam S. Salim, Dr. N. Aswathy, Dr. P. Shinoj Dr. C. Ramachandran, Dr. E. M. Abdussamad Dr. Boby Ignatius, Dr. Kajal Chakraborty	Dr. R. Narayanakumar		
Small-scale Fisheries-Assessment of credit needs	Dr. M. S. Madan, Dr. C. Ramachandran Dr. P. S. Swathilekshmi, Dr. B. Johnson	Dr. R. Narayanakumar		
Fish trade and welfare	Dr. N. Aswathy, Dr. S. S. Raju, Dr. P. Shinoj	Dr. Shyam S. Salim		
Social System Analysis of Fisheries Sector and Gender main streaming	Dr. V. P. Vipinkumar, Dr. P. S. Swathilekshmi Dr. B. Johnson	Dr. C. Ramachandran		
Biodiversity valuation and conservation of Marine resources	Dr. R. Narayanakumar, Dr. N. Aswathy Dr. K. Vinod, Dr. P. Laxmilatha	Dr. K. K. Joshi		



Fish seed stocking in sea cage sponsored by ICAR-CMFRI (See page 7)

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CMFRI Newsletter

Cadalmin, the CMFRI Newsletter is a quarterly publication of the Central Marine Fisheries Research Institute, Kochi. The publication gives an insight into the major events of the quarter, besides highlighting the salient findings in the research front and dissemination of technological know-how to the farming community.