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ARTICLE

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ICAR-CENTRAL INLAND FISHERIES RESEARCH INSTITUTE REACHES IN 75 GLORIOUS YEARS FOR NATION BUILDING IN INLAND FISHERIES

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Indian Council of Agricultural Research-Central Inland Fisheries Research Institute (ICAR-CIFRI), Barrackpore, Kolkata, West Bengal is a premier research Institute of pre-independence era in India catering to basic, strategic and applied research in fisheries, training, extension and developmental activities in inland open waters aiming at sustainable fisheries enhancement, ecological, and human resource management in a more pragmatic way.

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SUSTAINABLE MEASURES TOWARDS IMPROVING HILSA FISHERIES IN RIVER GANGA AND LESSONS FROM BANGLADESH: A REGIONAL APPROACH IS NEED OF THE HOUR

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The Ganga, is a home for 190 fish species at present, supports livelihood for millions of poor fishermen. Hilsa shad is commonly known for its nutritional, cultural and social importance and is known as state fish of West Bengal and national fish of Bangladesh.Realizing the importance of the species particularly towards fishermen livelihood, scientific evident sustainable measures have been proposed based on ICAR-CIFRI's experience over the decades and the successful sustainable measures adopted by Bangladesh towards improved hilsa production in the river Padma and Meghna. Therefore, a holistic regional approach is need of the hour to develop a joint management measures and policy towards sustainable hilsa fisheries in river Ganga.

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GESTATIONAL DIABETES MELLITUS: UNDERSTANDING THE MECHANISMS AND MANAGING THE CHALLENGE

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Gestational diabetes mellitus (GDM) is an emerging public health challenge affecting 15.8% of live-birth globally and in India it ranges between 3.8 and 21% depending on geographical location and diagnostic criteria. GDM is associated with a number of health problems both in mother and the fetus; hence it is important to retard its prevalence and associated perinatal complications, in cost-effective manner. In this backdrop, the aim of the present work is to highlight the underlying pathophysiological mechanism and efficacy of dietary intervention to address the challenge of GDM.

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FORAGING BEHAVIOR AND ROLE OF HONEYBEES IN CITRUS MAXIMA AND ITS IMPACT ON FRUIT PRODUCTION

SANDIP CHOUDHURY*, SUBRATA MONDAL
AND SUDHENDU MANDAL

*The active role of honeybees (*Apis *sp.) in* Citrus maxima *(Burm.) Merr. has been presented here with reference to pollen dispersal, pollination and frut production. The sweet scented, nectariferous flower showed late afternoon pattern of anthesis with a mean number of 18,725 pollen grains with pollen/ovule ratio 585:1. The best pollen germination (95 ± 1.4%) with a mean of 975 mm long pollen tube was observed in 20% sucrose supplemented with 100 ppm boric acid. Stigma showed maximum receptivity after 12hrs of anthesis with reference to* in vivo *pollen germination, esterase and peroxidase activity. Presence of copious esterase and peroxidase over stigma surface coincided with its receptivity. The field experimental data on the effect of netting and bagging on fruit set of* Citrus maxima *suggest that* Apis *sp. were dominant pollen vector among other flower visitors belonging to Thysanoptera, Hymenoptera and Diptera. The plant favours xenogamy showing delayed pollen and stigma receptivity. The plant attracts nocturnal flower visitors instead of its late afternoon pattern of anthesis which might be a positive selection force for the reproductive fitness and maximum fruit production. Percentage of fruit-set was considerably high in natural open flowers compared to netted and bagged flowers indicating the vital role of insects for successful pollination and suggests that fruit yields may be enhanced by introducing manageable bees together with their nesting requirement.*