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Summer Field School [Online] on
MOUNTAIN ECOSYSTEMS AND RESOURCE MANAGEMENT
Ivano-Frankivsk Region, Ukraine :: 19-28 September, 2021

DELEGATE PARTICIPANT'S PROFILE

	**Dr. Oshin Dhillon** *Assistant Professor* Department of Zoology Akal University (Pubjab) 13/732 Gobindnagar Sirsa, Haryana, India Tel: +91 8199061875 Email: oshindhillon@gmail.com
Highest Education	PhD
Personal Statement	I am a doctorate in Zoology, nature-loving person and really affected by the problems with which our Earth is surrounded by. Working on nutrition and health off fish species made me eager to contribute a little towards our ecosystem. I have published several articles in international and national journals and, attended and presented my research findings in national and international conferences. I am seeking all kinds of opportunities that can assist me to contribute towards the novel act of environment and habitat protection. I am really eager to explore new places and attain advantageous acquaintance. I would like to enhance my skills and knowledge by joining the program which will further enable me to create awareness in my institution and nearby people. I can assure the organizers that they will not be disappointed if an opportunity is provided to me by them. I will not leave any stone unturned in bestowing the skills learned by the program.
Paper/Presentation Title	*Growth promotion and immunomodulation with autochthonous probiotic bacteria in Labeo calbasu (Hamilton, 1822)*
Keywords	Aquaculture; Probiotics; Immunomodulation

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Abstract (100-300 words)	The aquaculture has picked up considerably by providing nutritious animal protein. With the escalation and broadening of the aquaculture, there is always a risk of the emergence of disease. There has been an imperative step in the way to deal disease risk and aquaculture challenges, driven to a limited extent by the developing an approach towards the utilization of probiotics in improving the intestinal functioning. The present research work was undertaken for evaluating the effect of probiotic supplemented to Labeo calbasu fingerlings imparting significant growth and immune parameters using autochthonous probiotics Aneurinibacillus aneurinilyticus (2000 CFU g^{-1}). Four experimental feeds were prepared namely, T1 (control: 40% soybean), T2 (40% duckweed), T3 (40% duckweed + lysine + methionine), and T4 (40% duckweed + probiotic A. aneurinilyticus). The fingerlings fed with diet supplemented with probiotics demonstrated better growth performance and immune response than those fed with control diet. Analysis of Variance followed by Duncan's Multiple Range Test revealed significantly ($p<0.05$) high growth performance, digestibility, enzymatic activity with low feed conversion ratio in the fingerlings fed with A. aneurinilyticus. A challenge trial was performed for ten days with fish pathogen Aeromonas hydrophila. After challenge trial, the hematological values were slightly lower for erythrocytes and higher for leucocytes than pre-challenge values depicting a possible increased infection and inflammatory response mediated by leucocyte against bacteria. The production of superoxide radicals was significantly influenced by the probiotic diets. Immunohistochemical results marked the presence of the supplemented probiotics in the intestinal lumen and on the edges of the microvilli. This clearly revealed the presence of the autochthonous bacteria, A. aneurinilyticus enhancing the growth, digestibility and immune response against the pathogenic bacteria, when incorporated in the diet provided a gnotobiotic approach towards sustainable aquaculture.
More Information (weblinks)	https://www.researchgate.net/profile/Oshin-Dhillon https://scholar.google.com/citations?user=d7qizcoAAAAJ&hl=en