



MAHESHTALA COLLEGE

BUDGE BUDGE TRUNK ROAD

KOLKATA-700139

Affiliated to University of Calcutta, Kolkata

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Key Indicator – 3.3

Research Publications and Awards

**Criterion 3 – Research, Innovations and
Extension**



MAHESHTALA COLLEGE

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Supporting documents attached as per DVV Findings For State Aided College Teachers (SACT)

3.3.1: Number of research papers published per teacher in the Journals notified on UGC care list during the last five years

2

3.3.1.1: Number of research papers in the Journals notified on UGC CARE list year wise during the last five years

2022	2021	2020	2019	2018
1	0	0	0	1

Annual Report (2018) Number of published papers: 1

Title of Paper	Name of the author/s	Department	Name of journal	Calendar Year of publication	ISSN number	Link in article / paper / abstract of the article	Is it listed in UGC Care list
Matrimonial Advertisement as Reflection of Social Psyche: A Longitudinal Study of Matrimonial Columns in Select Newspapers in West Bengal	Arghya Mukhopadhyay	Journalism and Mass Communication	Sodh dristi	2018	0976-6650	UGC Approved, Journal No. 49321 Impact Factor 2.591	Yes

R Das

DR. RUMPA DAS
Principal
Maheshtala College
Kolkata-7000139





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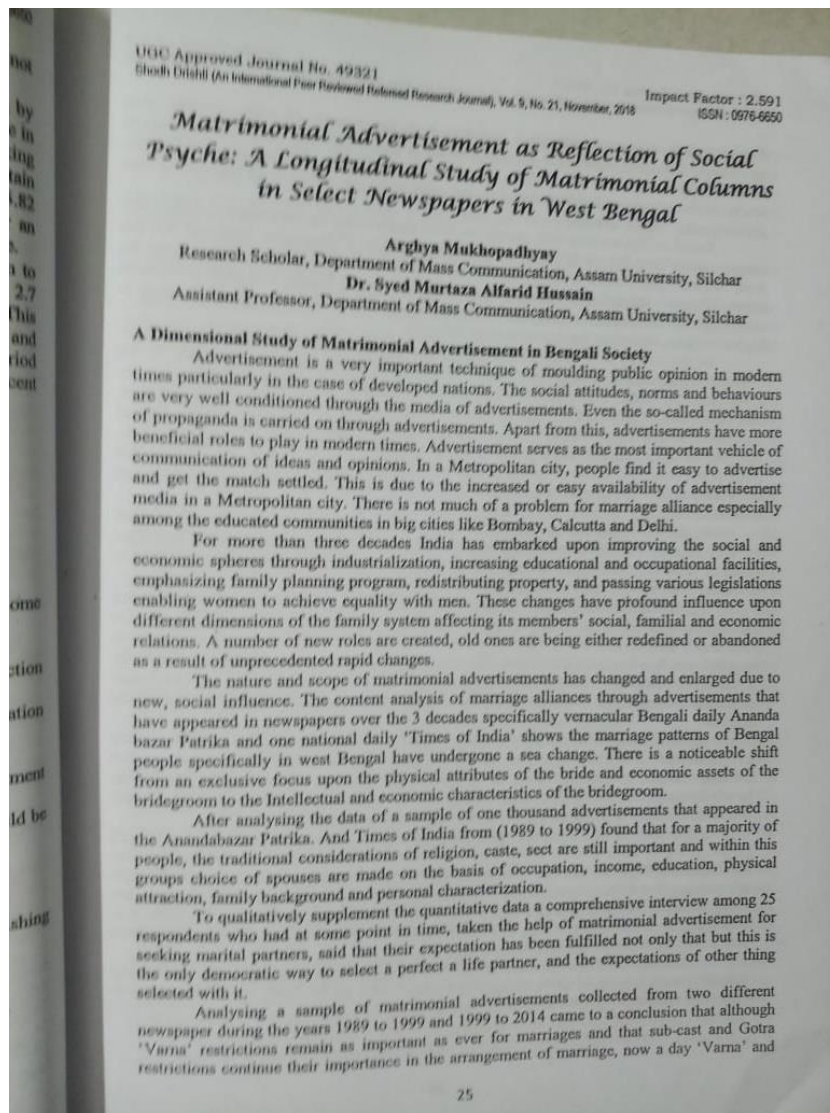
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Name of the Author: Arghya Mukhopadhyay, Maheshtala College

UGC approved Journal No. 49321 (Shodh Dristi)

Impact Factor : 2.591

Arghya Mukhopadhyay, Matrimonial Advertisement as Reflection of Social Psyche: A Longitudinal Study of Matrimonial Columns in Select Newspapers in West Bengal, 2018



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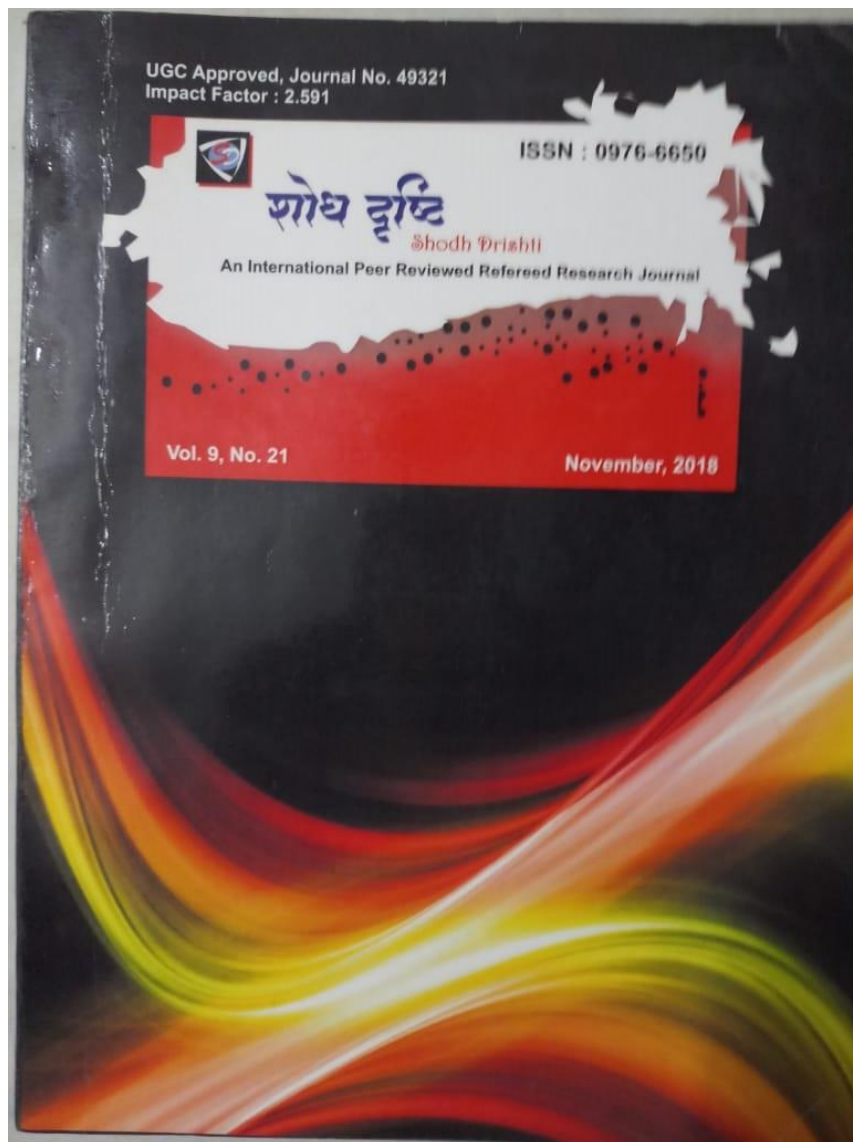
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Annual Report (2022)

Number of research papers published per teacher in the Journals notified on UGC CARE list during the year 2022.

Number of published papers: 1

Title of Paper	Name of the author/s	Department	Name of journal	Calendar Year of publication	ISSN number	Link to article / paper / abstract of the article	Is it listed in UGC Care list
An Ecoepidemic seasonally forced model for the combined effects of fear, additional foods and selective predation	Sasanka Shekhar Maity	Mathematics	Journal of Biological Systems	2022	0218-3390	https://www.worldscientific.com/doi/10.1142/S0218339023500316	Yes

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Name of the Author: Sasanka Shekhar Maity, SACT, Maheshtala College

Web Link: <https://www.worldscientific.com/doi/10.1142/S0218339023500316>

Sasanka Shekhar Maity, An ecoepidemic seasonally forced model for the combined effects of fear, additional foods and selective predation, 2022

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DOI: [10.1142/S0218339022500103](https://doi.org/10.1142/S0218339022500103)



AN ECOEPIDEMIC SEASONALLY FORCED MODEL FOR THE COMBINED EFFECTS OF FEAR, ADDITIONAL FOODS AND SELECTIVE PREDATION

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In this paper, we study a predator–prey system in which the prey population is infected from a parasite and the growth of susceptible prey is suppressed due to fear of predation. We consider that the predators have the ability to distinguish between the susceptible and infected prey items, and they avoid the infected ones to reduce fitness cost. The predators are assumed to die naturally and also due to intraspecific competition. The proposed model is analyzed mathematically for the feasibility and stability of the system's equilibria. We also discuss the existence of Hopf bifurcation by taking the feeding preference of predators as a bifurcation parameter. We perform global sensitivity analysis to identify model parameters having significant impact on the density of predator population in the ecosystem. Our simulation results show the stabilizing role of selective feeding of predators whereas fear factor and disease prevalence induce limit cycle oscillations. Feeding more the predators with additional foods bring stability in the system by evacuating the persistent oscillations. To model the situation more realistically, we consider that the parameters representing the cost of fear and the feeding preference of predators vary with time. For the seasonally forced system, conditions are obtained for which the system has at least one positive periodic solution; global attractivity of the positive periodic solution is also discussed. Our seasonally forced model demonstrates the appearance of a unique periodic solution, higher periodic solutions and complex bursting patterns.

Keywords: Ecoepidemic Model; Fear Effect; Additional Food; Selective Predation; Seasonality; Global Attractivity.

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Sasanka Shekhar Maity, An ecoepidemic seasonally forced model for the combined effects of fear, additional foods and selective predation, 2022

Proof of UGC approved journal: Journal of Biological Systems

The screenshot shows the journal profile for 'JOURNAL OF BIOLOGICAL SYSTEMS' on the Clarivate Master Journal List. The page includes a navigation menu, a sidebar with links to 'General Information', 'Web of Science Coverage', 'Journal Citation Report', 'Peer Review Information', and 'PubMed® Information'. The main content area displays the journal's ISSN (0218-3390 / 1793-6470), publisher (World Scientific), and a 'General Information' table. Below this is a 'Web of Science Coverage' table listing various collections and their categories.

Journal Website	Visit Site	Publisher Website	Visit Site
1st Year Published	1993	Frequency	Quarterly
Issues Per Year	4	Country / Region	SINGAPORE
Primary Language	English		

Collection	Index	Category	Similar Journals
Core Collection	Science Citation Index Expanded (SCIE)	Mathematical & Computational Biology Biology	Find Similar Journals
Other	Biological Abstracts	Biology Mathematical & Computational Biology	Find Similar Journals
Other	BIOSIS Previews	Biology Mathematical & Computational Biology	Find Similar Journals
Other	Essential Science Indicators	Biology & Biochemistry	Find Similar Journals

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