

(i) List of papers published in Referred International Journals

S.No.	Author(s)	Year	Title	Complete Reference of Journal
47.	Rana D. Parshad, <b>R. K. Upadhyay</b> and N. K. Thakur	2012	On the well posedness and further regularity of a diffusive three species aquatic model	Applied Mathematical Sciences, Vol. 6(13), pp. 597 – 619.
46.	Vikas Rai, A. M. Sedeki, Rana D. Parshad, <b>R. K. Upadhyay</b> and Suman Bhowmick	2011	Wetlands for Water Quality Management – The Science and Technology	Current issues of water Management. InTech, Edited by Uli Uhlig, pp.163-176.
45.	<b>R. K. Upadhyay</b> , Malay Banerjee, Rana D. Parshad & S.N. Raw	2011	Deterministic chaos versus stochastic oscillation in a prey-predator-top predator model.	Mathematical Modelling and Analysis Vol. 16(3), pp. 343–364.
44.	Vikas Rai, <b>R. K. Upadhyay</b> , S. N. Raw, Nitu Kumari	2011	Some aspects of animal behavior and community dynamics	Computational Ecology and Software Vol. 1(3), pp.153-182
43.	<b>R. K. Upadhyay</b> , S.N. Raw	2011	Complex dynamics of a three species food-chain model with Holling type IV functional response	Nonlinear Analysis: Modelling and Control Vol. 16(3), pp. 353–374
42.	<b>R. K. Upadhyay</b> , V. Rai, S.N. Raw	2011	Challenges of living in the harsh environments: A mathematical modeling study	Applied Mathematics and Computation Vol. 217, pp. 10105-10117
41.	<b>R. K. Upadhyay</b> , N.K. Thakur & V. Rai	2011	Diffusion-driven instabilities and spatiotemporal patterns in an aquatic predator-prey system with Beddington-DeAngelis type functional response	International Journal of Bifurcation and chaos Vol. 21(3), pp. 663-684.
40.	<b>R.K. Upadhyay</b> , Nilesh Thakur & Balram Dubey	2010	Nonlinear Non-equilibrium pattern formation in a spatial aquatic system: Effect of fish predation.	Journal of Biological systems. Vol.18(1) 129-159
39.	<b>R.K. Upadhyay</b> , Nitu Kumari & Vikas Rai	2010	Modelling spatiotemporal dynamics of Vole population in Europe and America.	Mathematical Biosciences Vol. 223 (1) pp. 47-57
38.	Xiang-Jun Wu, Jie Li, <b>R.K. Upadhyay</b>	2010	Chaos control and Synchronization of a three-	International Journal of Computer Mathematics.

			species food chain model via Holling functional response.	Vol. 87(1) pp. 199-214
37.	R.K. Naji, <b>R. K. Upadhyay</b> & Vikas Rai	2010	Dynamical consequences of predator interference in a tri-trophic population model.	Nonlinear Analysis: real world Applications Vol. 11(2) pp. 809-818
36.	<b>R. K. Upadhyay</b> , W. Wang & N.K. Thakur	2010	Spatiotemporal dynamics in a spatial plankton system	Mathematical modeling of Natural Phenomena Vol. 5(5) pp. 101-121
35.	<b>R.K. Upadhyay</b> , S.N. Raw & Vikas Rai	2010	Dynamical complexities in a tri-trophic hybrid food chain model with Holling type II and Crowley-Martin functional responses.	Nonlinear Analysis: Modelling and Control Vol. 15(3) pp. 361-375
34.	Rana D. Parshad & <b>R. K. Upadhyay</b>	2010	Investigation of long time dynamics of a diffusive three species aquatic model	Dynamics of Partial Differential Equations Vol. 7(3) pp. 217-244
33.	<b>R.K. Upadhyay</b> [Review Article]	2009	Observability of chaos and cycles in ecological systems: lessons from Predator-prey models.	International Journal of Bifurcation and Chaos Vol. 19, No.10, pp. 3169-3234.
32.	<b>R.K. Upadhyay</b>	2009	Dynamics of an ecological model living on the Edge of Chaos.	Applied Mathematics and Computation Vol. 210, 455-464.
31.	<b>R.K. Upadhyay</b> , Nitu Kumari & Vikas Rai	2009	Wave phenomena and Edge of chaos in a predator-prey system under Allee effect.	Differential Equation and Dynamical Systems. Vol. 17(3) pp. 301-317
30.	<b>R.K. Upadhyay</b> & R.K. Naji	2009	Dynamics of a three species food chain model with Crowley-Martin type functional response.	Chaos Solitons and Fractals Vol. 42(3), pp. 1337-1346.
29.	<b>R. K. Upadhyay</b> & V.S. H. Rao	2009	Short-term Recurrent Chaos and Role of Toxin Producing Phytoplankton (TPP) on Chaotic Dynamics in Aquatic Systems.	Chaos Solitons and Fractals Vol. 39, pp.1550-1564.
28.	<b>R.K. Upadhyay</b> , Nitu Kumari & Vikas Rai	2009	Wave of chaos in a diffusive system: Generating realistic patterns of patchiness in plankton-fish dynamics.	Chaos Solitons and Fractals Vol. 40(1), 262-276.

27.	<b>R. K. Upadhyay &amp; Vikas Rai</b>	2009	Complex dynamics and synchronization in two non-identical chaotic ecological systems.	Chaos Solitons and Fractals Vol. 40, 2233-2241
26.	<b>R.K. Upadhyay, Nitu Kumari &amp; Vikas Rai</b>	2009	Exploring dynamical complexity in diffusion driven predator-prey systems: Effect of toxin production by phytoplankton and spatial heterogeneities.	Chaos Solitons and Fractals Vol. 42(1), 584-594
25.	Balram Dubey, Nitu Kumari & <b>R.K. Upadhyay</b>	2009	Spatiotemporal pattern formation in a diffusive predator-prey system: An analytical Approach	Journal of Applied Mathematics and Computing Vol. 31, pp. 413-432.
24.	<b>R.K. Upadhyay</b>	2008	Chaotic dynamics in a three species aquatic population model with Holling type II functional response.	Nonlinear Analysis: Modelling and Control Vol. 13 (1), pp. 103-115.
23.	<b>R.K. Upadhyay, Nitu Kumari &amp; V. Sree Hari Rao</b>	2008	Modeling the spread of Bird flu and predicting outbreak diversity.	Nonlinear Analysis: Real world Applications Vol. 9(4), pp. 1638-1648.
22.	<b>R.K. Upadhyay, Nitu Kumari &amp; Vikas Rai</b>	2008	Wave of chaos and Pattern Formation in Spatial Predator prey systems with Holling type IV Predator response.	Mathematical modeling of Natural Phenomena Vol. 3(4), pp. 71-95.
21.	<b>R. K. Upadhyay, N. Bairagi, K. Kundu &amp; J. Chattopadhyay</b>	2008	Chaos in Eco-epidemiological problem of Salton Sea & its possible control.	Applied Mathematics and Computation Vol.196, pp. 392-401.
20.	<b>R.K. Upadhyay, A. Mukhopadhyay &amp; S.R.K. Iyengar</b>	2007	Influence of environmental noise on the dynamics of a realistic ecological model.	Fluctuation and Noise Letters Vol. 7 (1), pp. L61-L77.
19.	<b>R. K. Upadhyay, R.K. Naji &amp; Nitu Kumari</b>	2007	Dynamical complexity in some ecological models: effect of toxin production by phytoplankton.	Nonlinear Analysis: Modelling and Control Vol. 12 (1), pp. 123-138.
18.	Vikas Rai, Madhur Anand & <b>R.K. Upadhyay</b>	2007	Trophic structure and dynamical complexity in simple ecological model.	Ecological Complexity Vol. 4, pp. 212-222.

17.	<b>R. K. Upadhyay &amp; S.R.K. Iyengar</b>	2006	Extinction and coexistence of competing prey species in Ecological systems.	Journal of computational methods in Science and Engineering Vol. 6, pp. 131-150.
16.	V. Rai & <b>R.K. Upadhyay</b>	2006	Evolving to the edge of chaos: chance or necessity?	Chaos, Solitons and Fractals Vol.30(5), pp.1074-1087.
15.	Ram Naresh, Shyam Sunder & <b>R. K. Upadhyay</b>	2006	Modelling the removal of primary and secondary air pollutants by precipitation.	International Journal of Nonlinear Sciences and Numerical Simulations Vol. 7(3), pp. 285-294.
14.	<b>R.K. Upadhyay &amp; J. Chattopadhyay</b>	2005	Chaos to order: role of toxin producing phytoplankton in aquatic systems.	Nonlinear Analysis: Modelling and Control Vol. 10(4), pp. 383-396.
13.	<b>R.K. Upadhyay &amp; S.R.K. Iyengar</b>	2005	Effect of seasonality on the dynamics of 2 and 3 species prey-predator systems.	Nonlinear Analysis: Real world Applications Vol. 6 (3), pp. 509-530.
12.	Vikas Rai & <b>R.K. Upadhyay</b>	2004	Chaotic population dynamics & biology of the top- predator.	Chaos Solitons and Fractals Vol. 21, pp. 1195-1204.
11.	B. Dubey & <b>R.K. Upadhyay</b>	2004	Persistence and extinction of one prey and two predators system.	Nonlinear Analysis: Modelling and Control Vol. 9(4), pp. 307-329.
10.	<b>R.K. Upadhyay</b>	2003	Multiple attractors and Crisis route to chaos in a model food- chain.	Chaos Solitons and Fractals Vol. 16, pp. 737-747.
9.	B. Dubey, <b>R.K. Upadhyay &amp; J. Hussain</b>	2003	Effect of Industrialization & pollution on resource biomass: A Mathematical Model.	Ecological Modelling Vol.167 (1-2), pp. 83-95.
8.	<b>R.K. Upadhyay &amp; V. Rai</b>	2001	Crisis-limited Chaotic Dynamics in Ecological systems.	Chaos Solitons and Fractals.(Chaos in Ecology) Vol. 12, pp. 205-218.
7.	<b>R.K. Upadhyay, S.R.K. Iyengar &amp; V. Rai</b>	2001	Species Extinction Problem: Genetic Vs Ecological factors.	Applied Mathematical Modelling Vol. 25, pp. 937-951.
6.	<b>R.K. Upadhyay</b>	2000	Chaotic behavior of population dynamic systems in ecology.	Mathematical and Computer Modelling Vol. 32, pp. 1005-1015.
5.	<b>R.K. Upadhyay, V. Rai &amp; S.R.K. Iyengar</b>	2000	How do Ecosystem respond to external perturbations?	Chaos Solitons and Fractals Vol. 11, pp.1963-1982.

4.	<b>R.K. Upadhyay</b> , V. Rai & S.R.K. Iyengar	2000	Stability and complexity in ecological Systems.	Chaos Solitons and Fractals Vol. 11, pp.533-542.
3.	Dheeraj Bhardwaj & <b>R.K. Upadhyay</b>	1999	Group Theoretic Method for Converging Shock Wave Problem.	Applied Mathematics Letters Vol. 12, pp. 1276-1286.
2.	<b>R.K. Upadhyay</b> , S.R.K. Iyengar & V. Rai	1998	Chaos: An ecological reality?	International Journal of Bifurcation and Chaos Vol. 8(6), pp. 1325-1333.
1.	<b>R.K. Upadhyay</b> & V. Rai	1997	Why chaos is rarely observed in natural Populations?	Chaos Solitons and Fractals Vol. 8(12), pp. 1933-1939.
<b>Article published in referred national journals</b>				
48.	<b>R. K. Upadhyay</b> & S. Dey	2002	Advances in Mathematical, Statistical & Computational methods in Science & Technology.	Current Science Vol. 82(11), pp. 1313-1314

**(ii) Papers published in Conference Proceedings/Symposia**

S.No.	Author(s)	Year	Title	Name and Place of Conference
49.	<b>R. K. Upadhyay</b>	2007	Chaotic dynamics in a tri-trophic mutual interference aquatic population model.	International Conference on Computational and Mathematical Methods in Science and Engineering, Illinois Institute of Technology Chicago, Illinois, USA. pp. 383-396.
50.	V. Rai & <b>R. K. Upadhyay</b>	2006	Ecological models with edge of Chaos.	International Conference on Mathematical Biology, IIT Kanpur. pp. 273-277.
51.	B. Dubey & <b>R.K. Upadhyay</b>	2006	A model for the effect of predation on two competing prey species.	International Conference on Mathematical Biology, IIT Kanpur pp. 242- 250.

52.	<b>R.K. Upadhyay</b> & V. Rai	2004	Realizing Ecological Systems.	Mathematics and Information Theory: Recent topics & Applications. NSIT, New Delhi. pp. 208- 217.
53.	<b>R.K. Upadhyay</b>	2003	Dynamics of Noised –induced ecological systems.	Advances in Mathematical, Statistical & Computational methods in Science and Engineering, ISM Dhanbad. pp. 287-298.
54.	<b>R.K. Upadhyay,</b> V. Rai & S.R.K. Iyengar	2001	Chaos Vs Stability in seasonally perturbed predator-prey systems.	International conference on Mathematical modelling, Deptt. Of Mathematics, University of Roorkee, Roorkee. pp. 605-610.

**(iii) List of papers Communicated for publication in International Journals**

1.	Vikas Rai, <b>R. K. Upadhyay</b> , N.K. Thakur	2011	Complex Population Dynamics in Heterogeneous Environments: Effects of Random and Directed Animal Movements	International Journal of Nonlinear Sciences and Numerical Simulation
2.	W. Wang, Y. Lin, R.K. Upadhyay, Y. Tan	2010	Complex dynamics of a spatial Holling-Tanner model with self and cross diffusion	Journal of Applied Mathematics and Computing
3.	<b>R. K. Upadhyay</b> , R. K. Naji, S.N. Raw & Balram Dubey	2011	The role of predator interference and Allee effect on the dynamics of food chain model	Chaos Solitons & Fractals
4.	<b>R. K. Upadhyay</b> & N. K. Thakur	2010	Spatiotemporal pattern induced by self and cross- diffusion in a spatial Holling- Tanner model	Computational Ecology and Software
5.	<b>R. K. Upadhyay</b> , V. Volpert & N. K. Thakur	2011	Propagation of Turing patterns in a plankton model	Journal of Biological Dynamics
6.	S.N. Raw, <b>R.K Upadhyay</b> & V. Rai	2011	Restoration and Recovery of the Salton Sea: lessons from an Eco-epidemiological Model	Mathematical Biosciences