**Brief report on Scholar-in-Residence programme - Prof. (Dr.) Michael C. Newman**

**From 7th-14thMarch, 2011, Prof. (Dr.) Michael C. Newman, Marine ecotoxicologist, Virginia Institute of Marine Science, College of William and Mary, USA. KSHEC Order no: SP/Erudite (Vol.II)/09-10, dtd. 31.12.2010**

The programme consisted of lecture series at the school of Marine sciences, CUSAT and Department of Aquatic Biology and Fisheries, University of Kerala. In addition to the lecture series, interactions with the faculties, research scholars and students of various departments of CUSAT were also conducted. The programme was held at CUSAT from 7th-13th March, 2011 and then on 14th, March at the department of Aquatic Biology and Fisheries, University of Kerala. A field visit with research scholars and faculty was also organized to observe the application of pesticides in the paddy fields of Kuttanad and its impact on the wet land ecosystem.

The programme was formally inaugurated by Dr.Ramachandran Thekkedath, Hon’ble Vice Chancellor, and CUSAT on 7 March 2011 at 10 am in the Marine sciences Auditorium. Dr.Newman delivered the first day public lecture on the specified topic, immitation and innovation in ecotoxicology. On 8 March 2011, Dr.Newman had interaction with Hon’ble Vice chancellor, it was decided that CUSAT would work out Memorandum of Understanding with the Virginia Institute of Marine Sciences (VIMS) in areas of common interest. The third day (9March, 2011), the programme started with the lecture on Ecotoxicity testing-an instance of Neurathian Boo strapping? The fourth day (10 March 2011) of the erudite programme was devoted to four series of lecture from 9.30 am to 3.30pm, which include session 1 *(Ecotoxicology-Contaminants and their bioaccumulation),* session II *(Contaminant effects),* session III *(Acute and chronic Lethal Effects) &* session IV (*Risk assessment).*

Dr.Newman presented a detailed lecture on 14March at the Department of Aquatic Biology and Fisheries, University of Kerala on all aspects of eco-toxicology. His special lecture about the imitation and innovation in ecotoxicology with the relevance to countries with emerging economies was an eye opener to the invited audience of scientific community. After the presentation, detailed discussions were held in the Department and paved the way for the future collaborations.

The erudite programme of Prof Michael.C.Newman was a great success in terms of academic and research expertise gathered by the students and faculty of the various Departments of CUSAT, Kerala University and other institutions in and around Cochin. The university as well as the Department of Marine Biology, Microbiology and Biochemistry, School of Marine science is thankful to the Higher Educational Council, Govt of Kerala for supporting to conduct the Erudite-Scholar-in-Residence Programme.

**LECTURES CONDUCTED:**

**March 7 (Monday)**

Venue: Cochin University of Science & Technology (CUSAT), School of Marine Sciences

*Topic:* ***Imitation and Innovation in Ecotoxicology***

**March 8 (Tuesday)**

Venue: Cochin University of Science & Technology (CUSAT)

Meeting with Vice Chancellor, Visit various laboratories and interact with researchers

**March 9 (Wednesday)**

Venue: CUSAT School of Marine Sciences,

*Topic***: *Ecotoxicology – An instance of Neurathian Bootstrapping?***

*Topic:* ***Basic marine ecotoxicology, risk assessment and potential***

**March 10 (Thursday)**

Venue: CUSAT, School of Marine Sciences,

*Topic***: *Marine Ecotoxicology: A Broad Perspective***

*Topic:* ***Toxicity testing, principles and futuristic outlook***

**March 11 (Friday)**

Venue: University of Kerala, Dept. of Aquatic Biology & Fisheries (Trivandrum),

*Topic:* ***Imitation and Innovation in Ecotoxicology (also relevance to countries with emerging economies)***

**March 12 (Saturday) to March 14 (Monday)**

*Field work in Kuttanad to study the impact of contaminants on the ecology of the wetland.*

**BENEFITS:**

*  Vignette and appendix was developed and published in the book: *Fundamentals of Ecotoxicology*, Dr. Newman, the Erudite Scholar was the Editor of the book.

1. Bijoy Nandan, S. 2014.Endosulfan and Cashew Production in Southern India, In: A vignette in the book,In: *Fundamentals of Ecotoxicology*, *The science of pollution,* Micheal Newman (Ed.) 4th edition, **ISBN:** 13:978-1-4665-8229-3. P. 55-62. **Publisher: Taylor and Francis, CRC press*.***

2. Bijoy Nandan, S. 2014. Indian Environment Laws, In: An Appendix, In: *Fundamentals of Ecotoxicology*, *The science of pollution*, Micheal Newman (Ed.), 4th edition, **ISBN:** 13:978-1-4665-8229-3. P 457-461*,* **Publisher: Taylor and Francis, CRC press**

(Vignette and appendix contributions in Fundamentals of Ecotoxicology remains the bestselling ecotoxicology textbook in North America and likely will become so in other markets soon. The vignettes and appendices contributed substantially to its success)***.***

* Prof (Dr.) S.Bijoy Nandan could undertake Fulbright Scholar Award as visiting faculty from 15th September, 2013 – December, 2014, where Dr. Newman, the Erudite Scholar was the host to the program.
* Developed National research program - *Sea Water Quality Criteria - Toxicity Effects of Selected Heavy Metals and Pesticides on Marine Organisms*, funded by Ministry of Earth Sciences-Integrated Coastal Marine Area Management Project Directorate (National Centre for Coastal Research (NCCR)), Govt. of India, University order no. PL B2/13633/2012 dtd. 17/10/2012, Cost: Rs. 160 lakhs **(August 2012- September 2017).**
* Second Phase of the MoES-NCCR, National research program on sea water quality criteria will also be anticipated during 2018-2019 period onwards.
* In cooperation with the Erudite programme 3PhD, 1M Phil; 4MSc program in different aspects of Marine ecotoxicology was accomplished. Collaborations are still in progress with more strength and efficiency.