



ONLY NEWS PAPER PUBLISHED IN INDIA FOR SCIENTIFIC COMMUNITIES

NESA

NATIONAL ENVIRONMENTAL SCIENCE ACADEMY

Vol. 20 Issue - 11 (MONTHLY)

November 2017

ABSTRACTS INVITED

National Conference on

IMPACT OF ENVIRONMENTAL CHANGES ON INDIAN ECOSYSTEMS

and XXX Annual Conference of National Environmental Science Academy

Jointly organised by:

NATIONAL ENVIRONMENTAL SCIENCE ACADEMY (NESA)

&

**Department of Environmental Sciences & Limnology & University Institute
of Technology, Barkatullah University, Bhopal, Madhya Pradesh**

on 23-24 December, 2017

at

**Gyan Vigyan Auditorium, Barkatullah University
Bhopal, Madhya Pradesh**

Abstract Submission Deadline 05.12.2017

Last date of Registration 15.12.2017

CONFERENCE THEMES & SUB THEMES

- ❖ Changing Environment and Indian Biodiversity
- ❖ Changing Environment and Indian Forestry
- ❖ Changing Environment and Indian Crops
- ❖ Changing Environment and Indian Water Bodies
- ❖ Changing Environment and Indian Climates
- ❖ Changing Environment and Indian Food Security
- ❖ Changing Environment and Indian Soil & Microflora
- ❖ Changing Environment and Human Health
- ❖ Changing Environment and Seed Production
- ❖ Changing Environment and Marine Terrestrial Flora & Fauna
- ❖ Changing Environment and Economically important plants
- ❖ Any relevant topic related to main theme

E-mail: ieie2017nesa@gmail.com • Website : www.nesa-india.org

Recreational hunting: A boon or a curse?

S. K. Basu

UFL, Lethbridge, AB Canada T1K 3M4;
email: saikat.bas@alumni.uleth.ca

Recreational and cultural hunting is allowed in many developed and developing countries around the globe; whether the act is acceptable or not that is an important debate. In several countries with unmanageably huge herbivore population and where the number of natural predators has gone down significantly over the past few decades; hunting licenses are released for specific target species to bring down their numbers in the wild, to earn revenue and to promote recreational hunting and tourism. Such recreational hunting is widely popular in the western nations like US and Canada and other countries where annual hunting and fishing licenses are released by Parks and Recreation Services. However, the practiced is highly monitored and based on solid data on the ground realities of the population dynamics of the species targeted

in a particular area; and sincere care and proper scientific management is used to make sure that such hunting does not impact natural wildlife populations or target species in specific area(s).

North America has a booming and huge recreational hunting and angling industry with profit running over several million US dollars across the continent. Although the system is not above criticism; since many conservationists have argued that trophy hunting and angling often takes out the most majestic members of a target species with respect to huge size, length, shape, big horns or other morphological parameters often considered important criteria in the reproductive biology of particular species. However, this argument has been debated by several others with research papers published in leading peer reviewed journals and magazines supporting both views by champions of either concepts. While leading and well known hunting magazines negate the idea; several nature and conservation magazines upheld this concern.



...contd. on page 3



But recreational hunting under proper monitoring and surveillance; with appropriate education and awareness including a level of responsibility and love for nature and wildlife from hunters and anglers have contributed in generating significant revenue for the local governments. Recreational hunting has successfully established a huge hunting and angling industry that provides significant employment in the form of manufacturers of hunting weapons, hunting and fishing gears and tools, tents and uniforms, high resolution cameras, binoculars and other quality optical instruments, brings jobs for taxidermy and trophy preservation workers, trackers, guides, hunting and fishing tour operators and other service providers like resorts, hotels, motels, camping ground facilitators and restaurant chains as many of this areas have developed into premier tourist spots attracting local and foreign tourists and earning significant revenue and foreign exchange to sustain local and regional economy. Hunting and fishing seasons are strictly monitored; and heavy fine and punishment are included for offenders who do not abide by the principle and regulations of recreational and/or sustainable hunting.

However, in several developed and developing countries; recreational hunting has been reported to be often going wrong and impacted wildlife populations due to negligence of the administration and conservation agencies; and irresponsible behaviors of the hunting teams or parties who have openly and blatantly violated recreational hunting norms and often hunted without permission or any legal authority or by bribing corrupt local agencies. In several east European countries and also in many

African and Asian countries like Pakistan, recreational hunting have been severely criticized by both regional and international wildlife and nature conservation agencies. Hunting endangered Houbara bastard birds in Pakistan by rich, Gulf nation elites with no moral responsibility has severely impacted the population dynamics of the species in the country with huge international criticism for the anti-conservation activities of the Government of Pakistan. Elephant culling operations in Zimbabwe has involved in indiscriminate shooting and promoted poaching under the cover of government aided culling programs to bring wild elephant populations under control bringing the concept of culling and recreational hunting into serious doubts. Recently, culling wild populations of nilgai, wild boar and peacocks in parts of eastern and northern India also came under severe criticism.

Cultural hunting is granted as a right and privilege for many aboriginal communities in both developed as well as developing and under developed nations around the globe including India. For ages, such hunting practices have been of sustainable nature, involving deep socio-cultural connections with the nature and sincere respect for forests and wildlife. Only hunting for food and socio-religious practices was the norm for some communities. However, organized poaching gangs have provided money as well as advanced weapons and trapping systems for capturing endangered species for supplying the needs of illegal global trade markets to many such communities. Several such communities have thus shifted from their ancient cultural roots and have been supporting organized poachers and wildlife traffickers for money and other resources causing havoc for local wildlife as they are now being hunted in huge unsustainable numbers under the protection of hunting right norms. Hence, merits and demerits of recreational and cultural hunting have been raising several important questions that need to be answered in the future.

Photo credits: K. Warnica and S. K. Basu

The Dynamic and Rich Canadian Black Chernozem Soil

S. K. Basu

UFL, Lethbridge, AB Canada T1K 3M4;
email: saikat.bas@alumni.uleth.ca

The Black Chernozem soil is a dominant soil type in the grassland ecosystems of Canada. Thus Black Chernozem represents the vast majority of the Canadian Prairies representing rich and extremely biodiverse grassland ecosystems spread across the provinces of Alberta (AB), Saskatchewan (SK) and Manitoba (MB). The corresponding agri-soil climate for Chernozem soil is cold, rarely

mild and mostly sub humid. This soil type represents dark colored A horizon; and is comparatively thicker than Brown and Dark Brown Chernozem soil groups.

Black Chernozem soil usually occurs in close association with native vegetation like grasses (mostly mesophytic) and forbs and/or with mixed grasses, forbs and trees; or in some cases with alpine grasses and shrubs. Chernozem is classified into various sub categories, such as: Orthic Black Chernozem (O.BLC), Rego Black Chernozem (R.BLC), Calcareous Black Chernozem (CA.BLC), Eluviated Black Chernozem (E.BLC), Solonetzic Black Chernozem (SZ.BLC), Vertic Black Chernozem (V.BLC) and Gleyed Black Chernozem (GL.BLC).



This unique soil type not only supports a highly productive agriculture system; but also supports a very rich and biodiverse ecological habitat of the Canadian Prairies. The energy efficient and nutritionally rich pastures on Chernozem (black soil) serve the local beef and dairy industries for providing high quality products; as well as cater to the local ecosystems producing diverse



ecological habitats for the local wildlife. Black Chernozem is nutritionally rich due to high organic and humus content (~15%). This soil type is important for the high agricultural productivity as well as the stability of the

biodiverse grassland ecosystems across the vast Prairies of Canada. The Canadian provinces of Alberta (AB), Saskatchewan (SK) and Manitoba (MB) are located in the heartland of the North American Prairies; and enriched by the presence of the natural occurrence of rich Black Chernozem soil.

Within such dynamic and productive agri-ecosystems; major carbon input is predominantly sub surface facilitated by the rich and extensive network of under ground root system. The unique soil microbes are capable of returning this trapped carbon back to the atmosphere by using the root system as their energy sources. However, it is important to mention that a smaller proportion of the Soil Organic Matter (SOM) or humus is retained in the soil. Thus over time, the cumulative accumulation of organic matter or humus in the soil increases making it both nutritionally rich and ecologically sustainable and active. The soil also has higher proportions of phosphorus, phosphoric acids and ammonia. In short, Black



To,

Vol. 20 Issue - 10 (Monthly)

October 2017

From

NATIONAL ENVIRONMENTAL SCIENCE ACADEMY

206 Raj Tower -1, Alaknanda Community Centre,

New Delhi -110019. Ph.: 011-2602 3614

E-mails: nesapublications@gmail.com; nesapub@yahoo.co.in

INVITATION OF RESEARCH ARTICLES for the PUBLICATION in NESA Journals

INTERNATIONAL JOURNAL ON AGRICULTURAL SCIENCES

NAAS RATING 2.60 & UGC List of Journal No. 62958

INTERNATIONAL JOURNAL ON ENVIRONMENTAL SCIENCES

NAAS RATING 3.06 & UGC List of Journal No. 7788

INTERNATIONAL JOURNAL ON BIOLOGICAL SCIENCES

NAAS RATING 3.14 & UGC List of Journal No. 7775

INTERNATIONAL JOURNAL ON CHEMICALS SCIENCES

ISSN NO. 0974-6056 & UGC List of Journal No. 7776

INTERNATIONAL JOURNAL ON PHYSICAL SCIENCES

ISSN NO. 0974-6056 & UGC List of Journal No. 7788

INDIAN JOURNAL OF UNANI MEDICINE

ISSN NO. 0974-6056 & UGC Listed Journal No. 20897

These JOURNALS ON DIFFERENT SUBJECTS are being published by this Academy. Send your manuscripts for peer-review by e-mail. **THE AUTHORS MUST MENTION ADDRESS, Contact Nos. and E-MAIL ID** in their forwarding letter. Proof will be sent for correction before publishing. A pledge for originality will be signed by the authors. Five sets of reprints will be dispatched within 30 days after the receipt of the PROCESSING FEE. alongwith a press print soft copy of final version of manuscript. All remittances are to be sent by a crossed Bank Draft in favour of **NATIONAL ENVIRONMENTAL SCIENCE ACADEMY** payable at **NEW DELHI**.

For further details and **NOTES FOR AUTHORS**,
please contact Academy at
nesapublications@gmail.com; nesapub@yahoo.co.in

Chernozem soil is responsible for the agricultural economic prosperity and ecological integrity of the Prairie provinces of Canada.

Photo credit: S. K. Basu