

CONSERVATION MEDIA IN KENYA
**The use of science and green media to achieve
conservation in the developing world**



Tutors: Munir Virani, Teeku Patel and Meera Subramanian

Location: Kenya

Key words: Raptors, media, conservation, photography,
environmental journalism, nature writing

St. Lawrence University Kenya Semester Program
Summer Term 2011
May 16th to May 31st

COURSE SYNOPSIS

Semester: Summer

AFS 248 -- Conservation Media in Kenya

Conservation biologist Munir Virani, with journalist Meera Subramanian, and photographer Teeku Patel

1.5 units/5.4 credits

Dates: May 16-31, 2011

In this 16-day intensive introduction to the field of Conservation Media, participants will learn about modern-day Kenya's major ecological and environmental issues affecting animal and human communities, with a particular focus on birds of prey. A Kenyan-based conservation biologist who works around the world on bird of prey research and conservation will lead in-the-field demonstrations of survey techniques, scientific observations, and data collection. Two other instructors, a Kenyan photojournalist and a New York-based environmental journalist, will then teach participants how to use their new knowledge to create compelling stories about the natural world through words and photographic images. Visiting guest lecturers bring additional depth to the level of learning. Students will intimately encounter some of the most biologically rich conservation areas in Kenya's Great Rift Valley, including Lake Naivasha and the Masai Mara National Reserve, interacting with the local communities as they experience one of the world's greatest, and most threatened, hotspots of biodiversity. Visit the 2010 Conservation Media blog [<http://blogs.stlawu.edu/conservationmediakenya/>] to learn more.

COURSE OVERVIEW

“Conservation media is a pictorial and print voice exclaiming not just the beauty of our world but its fragility and diversity as well. It's an introduction to those who have never thought about how wonderful and exciting our planet and its wildlife are, and hopes to convey some sense of empathy and urgency amongst its viewers and readers to inspire them to act in their own ways to save threatened habitats.”

- David Slater

In this 16-day intensive introduction to the field of Conservation Media, participants will learn about modern-day Kenya's major ecological and environmental issues affecting (but not limited to) birds of prey. A Kenyan-based conservation biologist who works around the world on bird of prey conservation will help facilitate in-the-field demonstrations of survey techniques, scientific observations, and data collection. Two other instructors, a Kenyan wildlife photographer and safari guide, and a New York-based environmental journalist, will then teach participants how to use their new knowledge to create compelling stories about the natural world through words and photographic images. Visiting guest lecturers (subject to availability) bring additional depth to the level of learning.

The bulk of the study will be conducted at Lake Naivasha in Kenya's Great Rift Valley followed by a visit to the world-famous Masai Mara National Reserve. Through direct experience, participants will learn about conservation issues in national protected areas and conservancies, as well as in biologically rich yet unprotected areas that are in dire need of conservation intervention. Participants will also interact with local communities, particularly school students and people whose

livelihoods are directly connected with the natural resources in the Lake Naivasha and Masai Mara area. Students will be exposed to a variety of issues that affect biodiversity – for example, the flower farming industry at Lake Naivasha, livestock grazing rights in national parks and game reserves, agricultural intensification in the Masai Mara, community-based eco-tourism projects, hunting and fishing, and the use of pesticides.

The course is suitable for seniors and juniors from any discipline, especially biology, conservation biology, environmental studies, geography, English, journalism, photography, and fine arts. Applicants should have a solid academic record (at least a B-average). Students will earn 1.5 SLU units or 6 credits. Applicants are required to bring a pair of binoculars, a digital camera (a DSLR is preferable but not mandatory), and a laptop (optional). Due to the nature and intensity of the course, class size will be kept small.

GRADING AND ASSIGNMENTS:

Class participation = 20%: Attendance, as well as quantity and quality of student participation in course activities, both during lectures and in the field, will compose nearly a third of the student's grade. Engaged listening, insightful questions, and stamina in the field are all highly encouraged.

Daily quizzes = 20%

Two papers = 20% combined: The course is broken up into two segments: Lake Naivasha and the Masai Mara. A 700-word academic paper will be due at the end of each segment, each worth 10% of your overall grade. Students are welcome to focus mainly on their subject area, although all three areas of conservation biology, journalism and photography should be covered in some way. The papers should be based on fieldwork and research, and use the Chicago Manual of Style citation format.

Nature writing pieces = 20% combined: Students will be responsible for writing two 500-word articles worthy of publication, due at the end of the Lake Naivasha segment and again at the end of the Masai Mara portion. Each is worth 10% of your grade. These pieces can be a news story or take a personal essay format. We'll workshop the pieces in class as a group in a seminar setting before students finalize.

Slideshow = 10%: Students will create two slideshows (again, at the end of Naivasha and the Mara), each with ten captivating photographs from their time in the field. Students are encouraged to choose a variety of images that capture conservation concepts in diverse ways, i.e. action animal shots, threats juxtaposed with what is threatened, conservation heroes, etc.

Raptor Presentation = 10%: Students will be required to read up and research on one species of Bird of Prey from a list provided below, and prepare a 15-20 minute PowerPoint presentation. For example, if the species selected is the African Fish Eagle, the guideline will be to provide an in-depth illustrated account of the species' characteristics, its distribution, behavior, diet, threats and conservation status. This should be contextualized to the birds' status in Kenya and be much more

comprehensive than a Wikipedia entry. This presentation should preferably be prepared **BEFORE** they arrive in Kenya. Students are likely to encounter the following species of birds of prey during their visit to Kenya and therefore should choose **one** species for their raptor presentation—African Fish Eagle, Augur Buzzard, Long-crested Eagle, Martial Eagle, Eastern Chanting Goshawk, Black-chested Snake Eagle, Bateleur, Lappet-faced Vulture, African White-backed Vulture or Ruppell's Vulture.

CONSERVATION MEDIA – RAPTOR CONSERVATION ISSUES

Instructor: Munir Virani (The Peregrine Fund and National Museums of Kenya)

“The key to protecting the environment is to motivate those who are in a position to do so. Politicians, private foundations, the general public, and corporations are impacted by great photos by great photographers as well as moving essays written by great writers.”

- Wendy Shattil and Bob Rozinski 2005

Birds of prey have long been potent symbols within human culture. They are powerful and charismatic, serving as ambassadors for countries, (Zambia's African Fish Eagle, the American Bald Eagle), sporting teams (the Green Eagles of Nigeria, the Atlanta Falcons) and institutions, (Barclays Bank's Eagle), representing strength, authority and stability. Raptors are also incredibly effective tools for conservation because of their position at the pinnacle of the avian food chain, thus serving as useful barometers of environmental health and ecological trends.

Unfortunately, raptors are especially vulnerable within the ecosystems they inhabit. They constitute a diverse group of highly mobile, wide-ranging, area-sensitive, land-based predators that occur across a broad range of habitats on six continents. East Africa's "Cradle of Mankind" supports more than 100 species of birds of prey, making it one of the richest raptor areas in the world, and Kenya alone is home to nearly 20% of the world's raptor species, nearly all of which are threatened by a multitude of human-induced factors that are contributing towards biodiversity and ecological impoverishment. Of the 86 diurnal species that occur in Kenya, the vast majority have become extremely rare while populations of previously common species have declined alarmingly. Globally, most bird populations are declining, some to the point of extinction.

The rich biological diversity of East Africa is linked to its spectacular array of savanna grasslands, lakes, rivers, forests, and alpine habitats that harbor a fascinating collage of flora and fauna, but all are under serious threat. The human population in sub-Saharan Africa continues to expand at one of the world's highest rates, dramatically altering the ecosystems on which raptors and many other creatures depend. Other compounding factors in Africa such as disease, poverty, and low literacy levels combine to create monumental conservation challenges for the 21st century.

Because they defy political boundaries and cannot be confined within game fences, raptors are especially vulnerable to the impacts of human-caused habitat changes, persecution, poisoning and lack of public awareness. To document the dynamics of a population decline and the specific causes of mortality is especially difficult in non-

colonial, large birds of prey, which usually occur at low natural densities across the landscape.

There is an urgent need to take an inventory and identify those species that require immediate conservation action. Instead, almost all conservation resources in Africa are spent on the “The Big Five,” the charismatic mega fauna animals that include the lion, leopard, elephant, rhino and buffalo, all of which are already protected within the realms of the national parks system.

Raptors receive none of these protections. Yet they serve as effective indicators of the general health of an ecosystem, responding to the presence of harmful substances in the environment (as demonstrated by the catastrophic decline of vultures in India due to a common livestock drug and raptors in the US due to the pesticide DDT). Like all predator-prey relationships, what affects the prey ultimately affects the predator and abnormalities in predators (population or behavior) are often reflections of other abnormalities further down the food chain. Using their spatial requirements for population viability as an index for estimating minimum sizes for effective nature reserves is a first step towards providing whole-system viability. To conserve raptors it is critical to understand their natural history, their habitat requirements, and the environments in which they live. The research required to gain this knowledge, while challenging, presents opportunities for training local conservationists, students and resource professionals in developing countries and fostering a conservation community.

Over the course of the 16-day field period, participants will get hands-on training in surveying, trapping, photographing and handling raptors. The following lectures will also be conducted:

Lecture 1: An introduction to Kenya’s raptors

A pictorial account of some of the charismatic and common raptors found in the Lake Naivasha as well as the Masai Mara region. This will form a useful identification introduction for students new to the field of raptors. The lecture will highlight some of the behavioral aspects of raptors and demonstrate the different groups of raptors from large eagles to medium-sized hawks, falcons, owls and vultures. The talk will also highlight the major threats to raptors and focus on some case studies.

Lecture 2: Lake Naivasha – an ecological disaster

With water extractions, flower farming, alien species introductions, use of pesticides and a rapidly growing human population, Lake Naivasha is an ideal academic arena. This lecture will chronologically highlight the primary species introductions to the lake’s ecosystem and illustrate the major ecological and environmental problems affecting the future survival of the lake and its biodiversity.

Lecture 3: Ecological Survey Techniques

The lecture will inform participants about population survey techniques and how to collate and analyze data. It will highlight aspects of basic raptor biology that can be used on other species as well, and cover radio-telemetry, use of satellite transmitters, capture techniques, demographic studies, and Geographical Information Systems (GIS).

Lecture 4: Ecology of the Masai Mara National Reserve

This lecture introduces participants to the world famous Masai Mara National Reserve and highlights some of the current raptor studies taking place there. Discussion will focus on overall environmental problems affecting the long-term future of the park.

CONSERVATION MEDIA – ENVIRONMENTAL JOURNALISM & NATURE WRITING

Instructor: Meera Subramanian, freelance journalist

“The ideal scientist thinks like a poet, works like a clerk and writes like a journalist.”
- E.O. Wilson

Drawing on their new knowledge of contemporary Kenyan conservation issues gained from lectures and fieldwork with Munir Virani, New York-based journalist will lead students in learning how to create compelling and accurate stories about the natural world.

Lecture 1: Environmental Journalism & Nature Writing 101

Conservation stories are environmental stories. Both are rooted in place with characters both human and animal, including creatures of land, water and sky. Students will study and discuss assigned readings that exemplify descriptive writing about the Kenyan landscapes they are experiencing, and experiment with their own writing. The objective is to learn how to write about a place so that readers who have never been there can vividly imagine them (and care about them), and so native inhabitants can see their own backyards in a new light. We'll approach this in two ways, through environmental journalism and nature writing. In the first, we'll cover the basics of journalism, learning the essentials of researching, reporting and writing a news story—from the lead to the nut graf to the kicker—as well as how to best to use quotes and frame the story. We'll talk about how to find and interview dependable sources (going beyond Google), decipher scientific studies, and translate technical information into comprehensible and convincing stories that engage readers. For nature writing, we shift gears to explore the use of a strong personal voice through the first-person essay. Some of the most compelling and influential environmental writing blends this personal point-of-view with practical research and reporting. Others use creative writing about a seemingly simple subject that conveys a larger metaphorical meaning. We'll also discuss the changing attitudes to writing and reporting in the first person, including the evolving field of immersion journalism, exploring the question of when and if it is appropriate for the author to hold opinions about the stories they cover. Multimedia, including blogging, will also be discussed in the context of the radical transformation currently underway within the field of publishing.

Lecture 2: The Unique Challenges of Environmental Writing

Covering environmental stories is often complicated, with opinionated sources that are polarized on extreme sides of an often-charged issue. Students will learn how to synthesize these divergent viewpoints to uncover an accurate sense of the story for their readers. Environmental stories are also fundamentally scientific stories, yet most journalists don't have a scientific background in the subjects they cover. We'll talk about the challenge of understanding and transforming complex scientific information into digestible material accurately.

Students will share their first drafts of writing with each other to get constructive feedback in a seminar setting.

Lecture 3: Environmental Journalism & Nature Writing Continued

We'll delve deeper into the topics started in the first lecture. For journalism, we'll explore questions such as: What is the difference between a subject and a story? Who has covered the issue before? Why should you, and only you, cover this story, and why now? These are the questions that busy editors are asking when you pitch them a story idea in a riveting three paragraphs. We'll discuss the importance of familiarizing yourself with different publications and learning the unique approaches that they take, even when covering the same topic. For nature writing, we'll do close readings of pieces by classic nature writers and scrutinize what makes good writing work.

By the end of the course, students will have a better understanding of the written word and how to craft stories both journalistic and narrative.

CONSERVATION MEDIA – WILDLIFE AND NATURE PHOTOGRAPHY

Instructor: Teeku Patel, conservation photographer

Conservation efforts are always augmented by powerful imagery of living creatures that are under threat. Kenya-based photographer Teeku Patel will lead students into the field for some of the best opportunities to learn photography in a place that is a worldwide destination for wildlife viewing. The lectures aim to reveal the thought processes behind the making of good wildlife photographs as students get the time and opportunity to put their lessons into action in the field under the guidance of an experienced photographer.

Conservation photography is nothing new, but the conceptualization behind it is still evolving. Being a conservation photographer is not just about visualizing the issues or following interesting story lines. The real work of the conservation photographer begins after the last click of the shutter has been made. Making wonderful pictures is important; being accomplished storytellers is a must; following journalistic guidelines should be an automatic part of our workflow, but what we do with our images to make sure conservation action takes place is what defines our unique brand of photography.

Wildlife photography is regarded as being one of the more challenging forms of photography. As well as needing sound technical skills, such as being able to expose correctly, wildlife photographers generally need good field craft skills as well. For example, some animals are difficult to approach and thus knowledge of the behavior is needed in order to be able to predict their actions. Photographing some species may require stalking skills or the use of a hide/blind for concealment. Whilst wildlife photographs can be taken using basic equipment, successful photography of some types of wildlife requires specialist equipment, such as macro lenses for insects, long focal length lenses for birds and underwater cameras for marine life. The more a photographer knows about his subject, the better the chances are of getting good photographs.

Lecture 1: An Introduction to Digital Wildlife Photography

General course topics covered will include equipment, basic operations, settings (JPEG, RAW, Image Size), menus, modes, composition, exposure, depth of field, tips and techniques, use of flash and post processing.

Lecture 2: Understanding your subject and your equipment

In this lecture, participants will learn the importance of developing a better understanding of nature and wildlife subjects that enriches their photography work. For example, bird behavior photography techniques differ significantly from those of large ungulates. Students will also learn about planning for the field.

Lecture 3: Bringing it all together: From image capture to final product

In this lecture, participants will learn how to store and archive images, post-processing for print and web media as well as developing an easy-to-use image database.

Lecture 1: Human-Wildlife conflicts

Human-wildlife conflicts in East Africa and elsewhere are increasingly central to sustainable conservation. Until recently, the livelihoods of many Kenyans have depended heavily on natural resource management, extracting an existence directly from the land. With arable land scarcity, population pressure, political restriction of movement, and the emergence of lucrative markets such as tourism and horticulture, local livelihoods are coming into conflict with conservation agendas. This lecture aims to broaden students' awareness of the underlying causes behind these conflicts, and of the positive as well as negative ways in which humans and wildlife can interact with each other, exploring the potential for them to support each other.

COURSE SCHEDULE (see Table 1)

Participants depart the St Lawrence Compound in Nairobi on the 16th of May 2010 and spend the morning sorting out basic logistics. This will then be followed by a visit to the Daphne Sheldrick Wildlife Trust, a rehabilitation center for orphaned elephants. As feasible, and time permitting, there will also be a visit to Kibera – the largest slum in Eastern Africa where nearly 800,000 inhabitants live in the outskirts of Nairobi's Central Business District. Thereafter, we drive down the Great Rift Valley to spend eleven days at the Elsamere Field Study Centre on the shores of Lake Naivasha (www.elsatrust.org). This is the former home of George and Joy Adamson of *Born Free* fame. Here, participants will be introduced to the ecology and conservation issues of the lake as well as adjoining Hell's Gate National Park. Fieldwork will be on foot, by boat and by vehicle. The bulk of the lectures will be conducted here. We then drive over the Mau escarpment to the Masai Mara National Reserve where we spend four nights and learn about large ungulates, raptors, predators and the problems affecting the survival of premier tourism destinations. The Masai Mara National Reserve lies about 270 kilometers from Nairobi, and takes about 4 to 5 hours by road. The reserve is about 1510 square kilometers (reduced from 1672 square kilometers in 1984). However, the wildlife is far from being confined within the reserve boundaries, and an even larger area, generally referred to as the "dispersal area," extends north and east of the Masai Mara National Reserve. Masai communities live within the dispersal area with their stock, and a century of close association with the wildlife has resulted in direct conflict with wildlife. Cattle grazing inside the reserve is a

controversial issue. What are the solutions? We then return to Nairobi on the 31st of May to complete our work and make our final presentations.

Table 1: Day-to-day itinerary of the Conservation Media course in Kenya*

DAY	LOCATION	ACTIVITY
May 16	Elsamere FSC-Naivasha	Arrival at Elsamere Field Study Centre – Orientation and General Briefing
May 17	Elsamere FSC-Naivasha	Introduction to Lake Naivasha’s ecosystem Lecture: An Introduction to Kenya’s Raptors (MV) Lecture: Introduction to Digital Wildlife Photography (TP) Boat ride on Lake Naivasha to explore flower farms and view its flora and fauna.
May 18	Elsamere FSC-Naivasha	Fish Eagle and Hippo count Lecture: Understanding our subject and your equipment (TP)
May 19	Elsamere FSC-Naivasha	Fish Eagle and Hippo count Lecture: Lake Naivasha – an ecological disaster (MV)
May 20	Elsamere FSC-Naivasha	Hell’s Gate National Park. How does a small 60km ² national park that is so rich in raptors and plains game cope with agricultural, pastoral and horticulture pressure? Lecture: Environmental Journalism & Nature Writing 101 (MS)
May 21	Elsamere FSC-Naivasha	Visit to Mount Longonot National Park
May 22	Elsamere FSC-Naivasha	Visit to Primary schools and Kengen Geothermal Power Station
May 23	Elsamere FSC-Naivasha	Kedong Ranch – understanding the problems of a community-owned cattle ranch Lecture: The Unique Challenges of Environmental Writing (MS)
May 24	Elsamere FSC-Naivasha	Raptor Road Counts circumventing Lake Naivasha
May 25	Elsamere FSC-Naivasha	Fish Eagle trapping/banding + photography on the lake
May 26	Masai Mara	Depart for Masai Mara National Reserve. Overnight at a Masai Manyatta at Kishermoruak
May 27	Masai Mara	The livestock/pastoral/wildlife dilemma. Is there a solution? A visit to a primary School. Visit to Masai Cultural Centres. How “authentic” are they? Tourist traps or imparting cultural heritage?
May 28	Masai Mara	Full Day in Masai Mara with photographic opportunities. Lecture: Environmental Journalism & Nature Writing Continued (MS)

May 29	Masai Mara	Full Day Masai Mara with photographic opportunities. Lecture: Ecology and conservation Vultures in the Masai Mara (MV)
May 30	Masai Mara	Visits to Group Ranches – Lemek, Olaro Orok, Koiyaki and Siana. Overall discussions and wrap up. Students discuss their experiences.
May 31	Depart for Nairobi to arrive at St Lawrence Compound	

*The above itinerary and lectures serve as a guideline and will be subject to changes as a result of weather, permits and other unforeseen circumstances.

Includes:

- 1) Full board accommodation for 15 nights during the field course, transport, game drives and boat rides during allocated expeditions, all park and conservancy fees during allocated expeditions
- 2) One year membership of The Peregrine Fund

Excludes:

- 1) International air travel, visas, vaccinations, travel insurance
- 2) Airport transfers
- 3) Tips, items of a personal nature e.g. gratuities, beverages and laundry
- 4) SLU Orientation fixed costs and orientation variable costs
- 5) Cultural visits and expeditions not listed in this program