## (√Abroad) Official trip report form

### 2013 March 12 (Year/Month/Day)

Name	Sarad Paudel
Laboratory	Wildlife Biology and Medicine
Year (Grade)	D2
Destination	University of California-Davis, and Washington State University, Pullman, USA
Period of trip	February 17 to 24, 2013
Purpose of trip	For meetings on One-Health and internship opportunities with UC Davis and WSU, USA.

## Summary of activities

A visit to USA was made from February 17 to 24, 2013 to University of California-Davis and Washington State University, Pullman. I was accompanied by my supervisor Prof Toshio Tsubota and three graduate students from my laboratory.

# Visit to Marine Mammal Center (February 18, 2013)

We visited the Marine Mammal Center Located near San Francisco in California on February 18, 2013. As I am from Nepal and we do not have any sea in our country, this center was a kind of completely new and interesting for me. I got to know the types of marine mammals around California. I was very much impressed by the work they were doing there for the conservation of the marine mammals. They rescue the marine mammals for many different reasons, including malnourishment, separation, entanglements, and diseases, however, about 10% of the animals they rescue have been impacted by human interaction and hazards like net and fishing line entanglements, gun shots, illegal pick-ups, and boat strikes. They have well equipped hospital and laboratory facility for dealing with the sick and injured marine mammals. They also have the sufficient vets and technicians to deal with the mammals who need the help. The common marine mammal disease they encounter were Leptospirosis, Cancer, herpesvirus infection and domoic acid toxicosis. The center mostly deals with the rescue of seals, sea lions, sea otters and dophins

## One-Health meetings in UC Davis (February 19, 2013)

On February 19, we attended the meetings at One-Health Institute at University of California Davis. We had meetings with Dr Jonna Mazet, Executive Director & Professor, One Health Institute - Wildlife Health Center; Dr. Kirsten Gilardi, Associate Director, One Health Institute - Wildlife Health Center, Head of Global Programs and Dr. Tracey Goldstein, Research Scientist, One Health Institute -

#### Wildlife Health Center.

Dr Kirsten Gilardi gave us the overview of One-Health Institute and its history of development. She also explained the activities on One-Health Institute around Africa and coastal areas of US/Canada. Similarly, Prof Mazet elaborated the programs of One-Health Institue in Africa. She informed that their program was focused on water-borne diseases and tuberculosis in cattle/people in water holes in Tanzania. She also explained about the role of sea otters as sentinel species. Dr Tracey Goldsetin explained about the PREDICT project which is being run in twenty countries and their activities. Her role was more on laboratory trainings and capacity building.

Our supervisor Prof Toshio Tsubota explained about the One-Health leading Program at Graduate School of Veterinary Medicine, Hokkaido University. He also explained about the internship program for the graduate students. He also requested to the faculties of One-Health Institute to accept the students who are willing to do the internship at One-Health Institute during their third or fourth year of study. Prof Mazet informed that the One-Health Institute will be happy to receive the students from Hokkaido University for the internship in their institute.

We also had a meeting with Dr Cheryl Scott, Director Health Sciences Clinical Faculty. We discussed about the purpose of our visit and possibility of the collaboration.

Our supervisor Prof. Toshio Tsubota gave a talk program on "Asian Bear Conservation" for the faculties and the graduate students in the Veterinary School at UC Davis on the same day.

We had a luncheon talk with three faculties from One-Health Institute. We had discussion with Dr. Christine Johnson Associate Professor, Department of Medicine and Epidemiology; Dr. Michael Ziccardi, Associate Director, One Health Institute, and Dr. Pat Conrad, Professor Department of Pathology, Microbiology and Immunology. Prof Tsubota explained about the One-Health program at our graduate school and possibility of internship at One-Health Institute.

In the afternoon, we had a meeting with Dr. Lisa Tell, Director, School of Veterinary Medicine International Programs. Our supervisor Prof Toshio Tsubota explained about the One-Health Program in our graduate school and the abroad internship program for the graduate students in their third or fourth year. Dr Lisa explained about the possible methods of having the agreement between the Hokkaido University and One-Health Institute at UC-Davis.

In the later afternoon, we made a tour to Vet Med Teaching Hospital. The hospital was very big with all the modern facilities to treat the sick animals. It was really very impressive.

## Meetings at Washington State University, Pullman meeting (February 21, 2013)

A trip to Washington State University, Pullman was made and a series of meetings were done with the senior faculties of College of Veterinary Medicine and Paul G Allen School for Global Animal Health.

We had a meeting with Dr Gretchen Kaufman from Paul G Allen School for Global Animal Health. Prof Toshio Tsubota explained about the One-Health Program at Hokkaido University Graduate School of Veterinary Medicine. He also explained about the abroad internship required for the graduate students and requested Dr Gretchen for accepting the students who want to do internship at WSU.

Dr Gretchen explained about the newly established Paul G Allen School for Global Animal Health and the works the center has been doing. She informed that the school will be very happy to receive the students for the internship and she said that she will talk in detail with the Director of the school about the internship.

We also met with Dr Mushtaq Memon Associate Professor at College of Veterinary Medicine. Prof Toshio Tsubota explained him about the One-Health Program at Hokkaido University Graduate School of Veterinary Medicine. Dr Memon was interested to know the answers to some of the questions like the purpose of the internship for the graduate students, importance of internship for the PhD students and what students are supposed to do during the internship. Prof Tsubota clarified the questions raised by Prof Memon.

In the afternoon, we had a meeting with the Bear researchers at WSU. The meeting and discussion was held with Dr Charles Robbins, Director; Drs Lynne Nelson, Assistant Director of Bear Research, Conservation and Education Program, and Dr Heiko Jansen. Prof Toshio Tsubota provided the information on the current publication from our lab on bear research.

We also made a visit to Bear Research Center at WSU. It was really a nice center. They have grizzly bears in the center for the research.

After completion of visit to USA, we returned to Sapporo on February 24, 2013. The visit was very useful for us as we got to opportunity to meet the professors working in the field of One-Health and visit some research centers.



Fig 1. Marine Mammal Center



Fig 3. Area for keeping sick mammals at Marine Mammal Center



Fig 2. Lab at Marine Mammal Center



Fig 4 Meeting with Prof Mazet and her team at One-Health Institute, UC-Davis



Fig 5. Our team with Prof Mazet at UC-Davis



Fig. 6 Our team with Dr Kaufman at Paul G. Allen School for Global Animal Health, WSU



Fig 7. Meeting with the bear researchers  $\label{eq:fig_section} from\,WSU$ 



Fig 8. Visit to Bear Research, Conservation and Education Program, WSU



Fig 9. Demonstration of bear tranquilization

Techniques at Bear Research Center



Fig 10. Bear Traps at Bear Research Center