



Orangutan Veterinary Advisory Group

VIRTUAL

Workshop 2020



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Prepared with organizing committee of the Orangutan Veterinary Advisory Group: R. Commitante, S. Unwin, F. Sulisty, R. Jaya, Y. Saraswati, C. Nente, S. Sumita, Soedarmanto Indarjulianto, P.Nagalingam, Nancy Lung (Editors).

Orangutan Veterinary Advisory Group VIRTUAL Workshop 2020

Copies of all the Orangutan Veterinary Advisory Group (OVAG) Workshop Report of Proceedings can be found on the Orangutan Conservancy website, www.orangutan.com and the official OVAG website: www.ovag.org

All materials relating to this VIRTUAL 2020 Workshop can be found at

<https://umnadvet.instructure.com/login/canvas>

with proper login information sponsored by the

University of Minnesota College of Veterinary Medicine, U.S.

Participating Organizations/Groups:

A'Famosa Safari Wonderland, Malaysia
American Association of Zoo Veterinarians (AAZV)
Agency for Conservation of Natural (BKSDA) Resources (West and East Kalimantan) Indonesia
Asliqewan , Indonesia
Borneo Orangutan Survival Foundation (BOSF) Indonesia
Borneo Rhino alliance
Central Zoo Authority India
Centre for Orangutan Protection (COP) Indonesia
Chester Zoo, UK
Chimfunshi Wildlife Orphanage Trust, Zambia
Chulalongkorn University, Thailand
Cikananga Wildlife Center, Java, Indonesia
Fort Worth Zoo, US
Four Paws, Austria
Frankfurt Zoological Society, Sumatera, Indonesia
Faculty of Veterinary Medicine Gadjah Mada University, Indonesia
Faculty of Veterinary Medicine, Universitas Nusa Cendana, Indonesia
Gembira Loka Zoo, Indonesia
Hutan, Malaysia
IPB (Insitiut Pertanian Bogor) Indonesia
International Animal Rescue Indonesia (IAR) Indonesia
Javan Gibbon Center, Indonesia
Journal of Veterinary Medicine
Yayasan Jejak Pulang, Indonesia
Kangwon National University, South Korea
National Jewish Health, U.S.
Orangutan Conservancy, U.S.
Orangutan Foundation International, Indonesia
Orangutan Information Centre, Indonesia
Orang Juga, U.S.
Orangutan Veterinary Aid (OVAID), UK
Pan African Sanctuary Alliance (PASA),USA
Philadelphia Zoo, U.S.
PKBSI (Indonesian Zoo Association)
PONGO Alliance, UK
Royal Veterinary College, UK
Seoul National University, South Korea
Sepilok Orangutan Rehabilitation Centre (SORC), Malaysia
Singapore Zoological Garden, Singapore
Sintang Orangutan Center (SOC), Indonesia
St Louis Zoo, U.S.
Sumatran Orangutan Conservation Programme (SOCP), Indonesia
Sunway Lagoon Wildlife Park, Malaysia
Tasikoki Wildlife Rescue Center, Indonesia
The Smithsonian Institution, U.S.
Universiti Putra Malaysia
University of Birmingham, UK.
University of Minnesota, U.S.
VESSWIC

Wildlife Impact
Wildlife Rescue Centre (WRC) Jogja, Indonesia
Wildlife Rescue Unit (WRU), Sabah, Malaysia
World Wildlife Fund -Indonesia
Yayasan Kalaweit, Indonesia

Supporting Organizations:



Orangutan Conservancy, United States

Chester Zoo/NEZS, United Kingdom

Arcus Foundation (US) Fort Wayne Children's Zoo (US) The Orangutan Project (TOP) Australia

HOSTED VIRTUALLY ON CANVAS BY:

University of Minnesota, U.S.

Executive Summary

Hello friends,

Well, this year has certainly been different! Just like the rest of the world, we here at OVAG have had to try to make the best of a very bad situation. Who would have thought, last year, that this year, 2020, we would be dealing with a worldwide pandemic! At many past OVAG workshops we have discussed 'what if' scenarios for disease outbreaks – and here we are truly in one. Wow! Well, at least we were somewhat prepared.

Also like the rest of the world we have had to continue with our work in a virtual space. This year for the first time ever, OVAG went virtual! With the help of our co-founder Steve Unwin, our Indonesian representative Fransiska Sulisty, and an amazing team at University of Minnesota, our OVAG Workshop 2020 was able to transition to an online platform (via Canvas hosted by University of Minnesota) and a five-day real-time workshop using Zoom.

The extensive and exhaustive online materials were made available in the Canvas OVAG 2020 platform to every person who had ever attended an OVAG workshop (since 2009) as well as many others. The live Zoom sessions had 97 participants, spanned multiple time zones, across TEN different countries. It was quite amazing! People logged into the live sessions from shared laptops and cell phones, from cozy apartments and homes to offices to zoos to sanctuaries to forests!

Our work continued virtually with a Dec 1, 2020 CoVid 19 Webinar facilitated by drh. Fransiska Sulisty and assisted by the rest of OVAG committee. This 2 ½ -hour webinar covered a thorough review of testing capability and accuracy as well as some helpful tips and an example of protocols provided by drh. Citrakasih Nente and drh. Yenny Saraswati Jaya of Sumatran Orangutan Conservation Program. The session was followed by a lively Q & A session and was attended by 44 people including field vets, testing laboratories, academia, project managers and government personnel.

Our canvas platform as well as our OVAG Whatsapp group remains active and is providing much needed communication and assistance between participants on a daily basis. The OVAG committee continues to meet weekly to review any new developments and to continue reaching out to new partnerships in our ongoing efforts to build a more inclusive and extensive network.

We wish to thank everyone for the huge effort made in making OVAG 2020 possible!

In solidarity,


Raffaella Commitante, PhD (Cantab)
Steve Unwin, B.Sc., B.V.Sc., Dipl ECZM, MRCVS
Ricko Laino Jaya, drh.
Yenny Saraswat Jayai, drh.
CitraKasih Nente, drh., MVS (Conservation Medicine)
Fransiska Sulisty, drh., MVS (Conservation Medicine)
Sumita Sugnaseelan, DVM (UPM), PhD (Cantab)
Pakeeyaraj Nagalingam, DVM
Nancy Lung, DVM
Soedarmanto Indarjulianto, drh. PhD
and
Gavo (our mascot)

Budget (U.S. Dollar)

Indonesian expenses 2019-2020	\$ 200.00 (miscellaneous)
Indonesian Representative Retainer.....	\$ 5,000.00
Steve Unwin Retainer (Chester Zoo).....	\$ 6,552.67
TOTAL.....	\$ 11,752.67



Live Sessions Agenda

 OVAG Live Sessions, 6-10 July 2020						
Time	Monday, 6 July 2020	Tuesday, 7 July 2020	Wednesday, 8 July 2020	Thursday, 9 July 2020	Friday, 10 July 2020	
	Biosecurity for air borne pathogen management	OVAG Research Projects	Orangutan Clinical & Husbandry	Case Study Presentations (Moderated by Dr. Sumita Sugnaseelan & Dr. Indarjulianto)	Extended Discussion and Interactive Quiz	
08:00 - 08:30	Welcoming Session OVAG Committee	Enclosure Design Tool (EDT): Refining EDT as A Pre- and Post- Release Assessment Tool: Dr. Susannah Thorpe & EDT Team, University of Birmingham Moderator: Ricko	Anesthesia in Great Apes: Dr. Nancy Lung & Dr. Sathya Chinnadurai Moderator: Pakee	Case 1. OCTAGONAL SHAPED ORANGUTAN SOCIALISATION CAGE (drh. Jati Waluyo)	Continued discussion on Biosecurity for air borne pathogen management	
08:30 - 09:00	Epidemiology of Airborne Pathogen Outbreak: Dr Marie McIntyre & Dr. George Omondi Paul Moderator: Ricko			Case 2. COMPARTMENT SYNDROME IN AN ADULT ORANGUTAN AT BORNEO ORANGUTAN SURVIVAL FOUNDATION (drh. Arga Sawung Kusuma)	Continued discussion on OVAG Research Projects	
09:00 - 09:30				Case 3. Bone Surgery Treatment and Post-Operative Magement of an Adult Bornean Orangutan (drh. Agus Fahrani)	Continued discussion on Orangutan Clinical & Husbandry	
09:30 - 10:00				Case 4. COMPLETE BLOOD CHECK RESULT OF EIGHT INDIVIDUALS OF MACACA NIGRA IN ONE SOCIALIZATION GROUP (drh. Annisa Rahmawati)		
10:00 - 10:30	SARS-CoV-2 (CoVid19) in human population & non human implications: Dr. Jennifer Taylor-Cousar Moderator: Pakee	Tb surveillance & diagnostic updates in Asia & Africa: Dr. Steve Unwin, Dr. George Omondi, drh Siska Sulistyio Moderator: Citra	Dentistry: basic diagnostic & importance of dental management for great apes reintroduction programs: Dr. Bonnie Bloom Moderator: Siska	Case 5. A CASE REPORT OF TWO FATAL CHROMOBACTERIUM VIOLACEUM INFECTIONS IN REHABILITATED BORNEAN ORANGUTANS (PONGO PYGMAEUS) (drh. Greggy Poetra)	Online trivia quiz with OVAG Committee	
10:30 - 11:00			Case 6. INTESTINAL OBSTRUCTION DUE TO MULTIPLE INTESTINAL BANDS IN AN INFANT BORNEAN ORANGUTAN (drh. Vivi Dwi Santi)			
11:00 - 11:30			Case 7. Orangutan Conservation In An Increasingly Fragmented World (Dr. Marc Ancrenaz & Julie Sherman)			
11:30 - 12:00	Developing a contingency plan for your facility to manage a respiratory disease outbreak and staff roles in that biosecurity plan : Dr. Steve Unwin Moderator: Citra	Microbiome in Orangutans: drh. Yenny Jaya Moderator: Siska	Nutrition for Orangutans in Captivity: milk replacer for infants Barbara Todd Moderator: Yenny	COVID-19: Recommendation & Best Practices from OVAG Community (Moderator: Dr. Steve Unwin & Dr. Raffaella Comitante)	Workshop evaluation & feedback form	
12:00 - 12:30						Closing
12:30 - 13:00						
13:00 - 13:30	Molecular Detection and Identification of Pathogens: Dr. Reuben Sharma Moderator: Yenny	Research Collaboration: Molecular Screening of Orangutan Parasites: Dr. Reuben Sharma				
13:30 - 14:00						

**ALL SESSIONS WERE RECORDED AND UPLOADED ONTO THE OVAG 2020 MODULE, CANVAS PLATFORM
AT UNIVERSITY OF MINNESOTA**

Materials Covered in OVAG Workshop 2020:

1. Epidemiology

Discussion about epidemiology of airborne pathogens, including SARS-CoV-2. Materials provided by Dr Marie McIntyre from the University of Liverpool, UK.

2. Biosecurity

Discussion about the concept and measures of biosecurity in animal sanctuaries/zoos setting, mostly focused on SARS-CoV-2. Materials provided by Dr Steve Unwin from OVAG and University of Birmingham, UK.

3. SARS CoV-2 and COVID-19 Discussion

Everything about the current global pandemic, introduction of the Nonhuman Primate COVID-19 Information Hub on Canvas website <<https://umnadvet.instructure.com/courses/324>>, as well as discussion on what can be done by the OVAG community, finalization of OVAG Specific COVID-19 Guidance. Monitored by Dr Steve Unwin, Fransiska Sulisty (OVAG), and George Omondi (University of Minnesota).

4. SARS-CoV-2 in Humans

Discussion about the most recent knowledge about the clinical signs, treatment, and epidemiology of COVID-19 in human in the US population. Material provided by Dr Jennifer Taylor-Cousar from National Jewish Health, US.

5. Molecular Diagnostics

A refresher lecture about the basic of molecular diagnostics, what can and can't be done in a field situation. Material provided by Dr Reuben Sharma from Universiti Putra Malaysia.

6. Enclosure Design Tool

A continuation from last year's topic, this year the EDT team has moved to a research project, investigating at the use of the EDT protocol as a pre- and post- release assessment in orangutan reintroduction. Materials provided by Dr Susannah Thorpe and Dr Jackie Chappell from University of Birmingham, UK.

7. Tuberculosis in Great Apes: Investigations and Update from Africa and Asia

Discussion about the current issues and challenges in the diagnostic of Tuberculosis in great apes. A new surveillance project is about to start within the PASA community in Africa. Monitored by Siska Sulisty and George Omondi.

8. Orangutan Microbiome

A short refresher about microbiome and sharing of results from a pilot project investigating microbiome in an orangutan captive population. Materials provided by Yenny Saraswati Jaya from Sumatran Orangutan Conservation Programme (SOCP), Indonesia.

9. Anesthesia in Great Apes

A back-to-basic and comprehensive lecture about anesthesia and discussion about specific anesthesia in great apes. Materials provided by Dr. Sathya Chinnadurai from St. Louis Zoo, US.

10. Dentistry

A back-to-basic and comprehensive lecture about veterinary dentistry and discussion about specific dental problems / procedures in great apes. Material provided by Dr Bonnie Bloom, Texas A&M Baylor College of Dentistry, US.

11. Nutrition

Discussion about designing a milk replacer formula for orphaned orangutan in sanctuaries. Materials provided by Barbara Toddes, Philadelphia Zoo, US>

12. Case Studies

During this session, seven talks about medical cases and conservation issues in orangutans and other primates were presented by participants from Sintang Orangutan Center (SOC), Borneo Orangutan Survival Foundation (BOSF), and Tasikoki Wildlife Rescue Center, and Hutan/Wildlife Impact.

13. Zoos as Conservation Partners

Discussion about the role of modern zoos in conservation. Materials provided by Hannah Khwaja from Chester Zoo, UK.

The OVAG community also contributed to another Canvas site which features a separate information package on non-human primate CoVid-19

Frequently Asked Questions / In-Depth Technical Information / Curated Resources / IUCN COVID19 Guidance / Materials provided by:



Live Sessions Participants:

No	Country		
1	Jogjakarta Indonesia	Fransiska Sulisty	OVAG, Smithsonian
2	UK (Chester)	Steve Unwin	University of Birmingham, UK., OVAG, Chester Zoo
3	Indonesia (Medan)	Yenny Saraswati Jaya	Sumatran Orangutan Conservation Programme, OVAG
4	Indonesia (Sumatera)	Ricko Jaya	University of Birmingham, UK., OVAG
5	Indonesia (Sumatera)	Citrakasih Nente	Sumatran Orangutan Conservation Programme - Jantho
6	Indonesia (Jogkja)	Indarjulianto Soedarmanto	FVM, Gajah Mada University-Indonesia
7	US (California)	Raffaella Commitante	OVAG, Orangutan Conservancy
8	US (Texas)	Nancy Lung	OVAG, Journal of Veterinary Medicine
9	Malaysia (Selengor)	Sumita Sugnaseelan	OVAG, Universiti Putra Malaysia
10	Malaysia (KL)	Pakeeyaraj Nagalingam	Sunway Lagoon Wildlife Park, OVAG
11	Indonesia (Balikpapan)	Anne Dawydowa	Four Paws
12	Sumatra Indonesia	Andika Pandu Wibisono	Sumatran Orangutan Conservation Programme
13	Sumatra Indonesia	Arif Gumilar	Yayasan Kalaweit Sumatera
14	West Kutai, Indonesia	Aidell Fitri	WWF-ID
15	Denver US	Anneke Moresco	Denver Zoological Foundation
16	Samboja Kaltim, Indonesia	Agnes Pratamiutami Sriningsih	BOSF - SL
17	Palangkaraya, Indonesia	Arga Sawung Kusuma	BOSF Nyaru Menteng
18	Minahassa Utara, North Sulawesi Indonesia	Annisa Devi Rachmawati	Tasikoki Wildlife Rescue Center
19	Sumatra Indonesia	Aulia Fakhrrurozi	VESSWIC
20	Jambi, Sumatra Indonesia	Andhani Widya Hartanti	FRANKFURT Zoological Society
21	Palangkaraya, Indonesia	Agus Fahrani	BOSF NM
22	Ketapang Indonesia	Andini Nurillah	IAR
23	Ketapang Indonesia	Adisa Prayoga	IAR Ketapang
24	Singapore	Ali Anwar Bin Ahmad	Singapore Zoological Garden
25	Ketapang Indonesia	Andri Saputra	IAR Ketapang
26	Philadelphia, US	Barbara Todd	Philadelphia Zoo
27	Texas, US	Bonnie Bloom	Ft Worth Zoo
28	Java, Indonesia	Bilan Viawan	Cikananga
29	Malacca, Malaysia	Bong Ai Yin	A'Famosa Safari Wonderland
30	Toba Indonesia	Dewi Candra Fitriani	Independent vet
31	Pangalambun, Indonesia	Dimas Yuzifar	OFI
32	Samboja Kaltim Indonesia	duwi fatmawati	Yayasan Jejak Pulang
33	Bangkok Thailand	Elizabeth Riana	Chulalongkorn University
34	Aceh, Indonesia	Evi Fitriana	OIC
35	Kota Kinabalu, Sabah, Malaysia	Felicity Oram	PONGO Alliance and Orang Juga
36	Palangkaraya Indonesia	Fiet Hayu Patispathika	BOSF Nyaru Menteng
37	Berau, Kaltim Indonesia	Felisitas Flora Sambe Mambela	Centre for Orangutan Protection
38	Ketapang Indonesia	Fina Fadiah	IAR Ketapang
39	Ketapang Indonesia	Fadhil Kurniawan	IAR Ketapang
40	Samboja Kaltim Indonesia	Felita Widyaningsih	BOSF SL

41	Makassar, South Sulawesi Indonesia	Fahmi Agustiadi	Tasikoki wildlife rescue center
42	Michigan US	George Omondi	University of Minnesota, PASA
43	London, UK	Hannah Gray	Royal Veterinary College UK
44	Jogkja Indonesia	Galih Setiawan	Gembira Loka Zoo
45	Palangkaraya Indonesia	Gregg Poetra	BOSF NM
46	Jogkja Indonesia	Guruh Jaya Wisnuwardhana	Jogkja Wildlife
47	Jogkja Indonesia	Irhamna Putri Rahmawati	Wildlife Rescue Centre Jogja
48	Java Indonesia	Imam Arifin	International Animal Rescue Indonesia (Bogor
49	Kalimantan Indoensia	Ikhwan Amir	Central Kalimantan Borneo Orangutan Survival Foundation
50	West Kutai Indoensia	Itha Soge	WWF-ID
51	Birmingham UK	Jackie Chappell	University of Birmingham, UK.
52	Ketapang Indonesia	Joost Phillipa	IAR Ketapang
53	Portland, Oregon US	Julie Sherman	Wildlife Impact
54	Colorado US	Jennifer Taylor-Cousar	National Jewish Health
55	New South Wales Australia	Kevin C	Australia
56	Bogor, Indonesia	Ligaya Tumbelaka	IPB / PKBSI
57	Birmingham, UK	Lelia Bridgeland-Stephens	University of Birmingham, UK.
58	Seoul South Korea	Lina Susanti	Seoul National University
59	London, UK	Lydia Smith	Royal Veterinary College, London
60	KK, Sabah, Malaysia	Marc Ancrenaz	Hutan, Wildlife Impact
61	Samboja Kaltim, Indonesia	Muhtadin Wahyu	BOSF SL
62	Sibolangit, Indoensia	Meuthya	SOCP
63	Sepilok, Sabah, Malaysia	Nur Nabila Sarkawi	Sepilok Orangutan Rehabilitation Centre
64	Birmingham UK	Nadine Adrianna Sugianto	University of Birmingham, UK.
65	Samboja Indonesia	Ni Made Ayudita Arjani Laksmi Wedayanti	BOSF SL
66	Bogor Indonesia	Nur Purba Priambada	IAR Indonesia/Asliqewan
67	Sabah, Malaysia	Navaneetha Roopan	Wildlife Rescue Unit Sabah
68	Cornwall UK	Nigel Hicks	Orangutan Veterinary Aid
69	Pangalambun Indonesia	Popowati	Orangutan Foundation International
70	Muara Wahau, Indonesia	Patrick Flaggellata	BOSF-RHOI
71	Java Indonesia	Pristiani Nurantika	Javan Gibbon Center
72	Jambi Sumatra Indonesia	Riris Prawesti	Frankfurt Zoological Society
73	Pontianak, West Kalimantan Indonesia	Rian Winardi	independent vet
74	Kalimantan Indonesia	Reza Tarmizi	Borneo Rhino alliance
75	West Kalimantan Indonesia	Rahmayani (Maya)	Agency for Conservation of Natural (BKSDA) Resources (West Kalimantan).
76	Samboja Kaltim Indonesia	rizki widiyanti	jejak pulang
77	Kuala Lumpur, Malaysia	Reuben Sharma	UPM
78	Cornwall UK	Sara Hicks	Orangutan Veterinary Aid
79	Chuncheon, South Korea	Sulhi Aufa (uwi)	Kangwon National University, South Korea
80	Kalimantan Indonesia	Sofyan	Yayasan Kalaweit Indonesia (Kalimantan)
81	Birmingham UK	Susannah Thorpe	Universiyt of Birmingham, UK
82	St Louis US	Sathya Chinnadurai	St Louis Zoo
83	India	Sorang Tadap	Central Zoo Authority India

84	Ketapang Indonesia	Siti Hajariyah Fahyuna	IAR
85	Sepilok, Sabah, Malaysia	Sylvia Alsisto	Sepilok Orangutan Rehabilitation Centre
86	New Jersey US	Tim Georoff	Philadelphia Zoo
87	Ketapang Indonesia	Temia Twin Pangesti	IAR Ketapang
88	Chingola, Zambia	Thalita Calvi	Chimfunshi Wildlife Orphanage Trust in Zambia
89	Palangkaraya Indonesia	Vivi dwi Santi	BOSF NM
90	Kaltim Indonesia	vidi Saputra	BKSDA Katim
91	Bogor Java Indonesia	Wendi Prameswari	IAR Indonesia-Bogor
92	Java Indonesia	Wahyu Hananto	Cikananga Wildlife Center
93	Salatiga, Jogkja Indonesia	Waruh Pulung Nugrahani	Wildlife Rescue Centre Jogja
94	Sintang, West Borneo Indonesia	Waluyo Jati	Sintang Orangutan Center, West Kalimantan
95	Kupang Indonesia	Yeremia Yobelanno Sitompul	Faculty of Veterinary Medicine, University of Nusa Cendana Kupang Indonesia
96	Bogor Indonesia	Yumni Ghassani	Asliqewan
97	Aceh Sumatra Indonesia	Zulhilmi	OIC

Total Number of Participants: 97

Of the 97 participants, 73 people (75%) attended at least 3 days of the workshop, and over 50% attended the whole five days of the workshop, suggesting a high interest in the whole event.

	Monday, 6 th July	Tuesday, 7 th July	Wednesday, 8 th July	Thursday, 9 th July	Friday, 10 th July
Number of attendants daily	64	76	78	84	73

Countries where people were signing in:

- Indonesia: 61 participants
- Malaysia: 10 participants
- Singapore: 1 participant
- Thailand: 1 participant
- India: 1 participant
- South Korea: 2 participants
- Australia: 1 participant
- Zambia: 1 participant
- UK: 9 participants
- US: 10 participants

Plan for OVAG 2021: Hopefully we can return to our regular in-person format – but we will have to wait and see. As plans become more firm, we will notify everyone.

