



CONSERVATION, ZOO AND WILDLIFE MEDICINE INTERNSHIP TARONGA ZOO

Taronga Conservation Society Australia

Taronga Conservation Society Australia (Taronga) is a New South Wales Government enterprise managed under the NSW Department of Planning and Environment. It is governed by a 10-member Board of Directors.

Taronga operates Taronga Zoo in Sydney and Taronga Western Plains Zoo in Dubbo. Taronga Zoo is a metropolitan zoo, on approximately 28 hectares of land overlooking Sydney Harbour and was first opened in 1916. It is home to approximately 4500 animals from 287 species including native and exotic mammals, birds, reptiles, amphibians, fish and invertebrates.

Our Vision is "Securing a shared future for wildlife and people". Our role in conservation is to create direct and positive connections between wildlife and people. Through our efforts we protect endangered species, increase understanding of wildlife and inspire community action.

The Taronga Wildlife Hospital at Taronga Zoo and the Taronga Western Plains Zoo Wildlife Hospital are part of Taronga's Welfare Conservation and Science Division. Also within this Division are our Animal Nutrition, Conservation and Recovery Programs, Population Development and Welfare, and Conservation Science teams. The Science team includes Conservation Research, Behavioural Studies, Australian Marine Mammal Research Centre, Wildlife Reproductive Centre, Conservation Biology, Terrestrial Ecology Citizen Science and the Australian Registry of Wildlife Health.

Taronga Wildlife Hospital

The Taronga Wildlife Hospital (TWH) is responsible for the health of Taronga Zoo's animal population. There is a strong emphasis on preventative medicine and animal welfare. The Zoo's veterinary team has a wealth of experience in all aspects of zoo, wildlife and conservation medicine, including reproductive management, nutrition, physical and chemical restraint, clinical medicine and pathology. An advanced level of veterinary care is maintained through continuous critical evaluation against current best practice in zoo and wild animal medicine and pathology.

TWH also accepts sick, injured and orphaned native wildlife for treatment and rehabilitation. Our goals are to ensure the welfare of individual animals and that our interventions do not perpetuate suffering; and to ensure that when released no harm is done to free-ranging conspecifics, sympatric species and ecosystems. Our wildlife program also contributes to a national wildlife disease surveillance database. A wide range of native wildlife including marine wildlife is admitted from the greater Sydney region and beyond. Advice and veterinary services are provided for wildlife conservation and recovery programs, internal and external Taronga approved research projects, marine animal stranding and rescue events, and animal confiscations. The TWH also provides consultancies to other zoos, fauna parks and aquaria, and quarantines animals coming into the zoo from within Australia and overseas.

The TWH is a purpose built, well equipped veterinary hospital and quarantine facility. The hospital includes a range of hospital housing for large and small animals, examination room, surgery, clinical pathology laboratory, quarantine facility (approved by the Australian Government for importation from overseas), necropsy room, dispensary, offices and staff

amenities. A separate building provides hospital and rehabilitation wards and examination room for native wild animals.

Our hospital team comprises four clinical veterinarians, a veterinary pathologist, a hospital manager, a laboratory manager, a nutritionist, six veterinary nurses, and other support staff.

Our veterinary pathologist provides a gross pathology service for Taronga Zoo and histopathology service for both zoos. Taronga is also the only zoo in Australasia to employ a full-time nutritionist. The TWH has a clinical pathology laboratory and most samples are processed in-house. This includes haematology, biochemistry, microbiology and parasitology. The nursing team is highly trained in husbandry and veterinary nursing care of native and exotic animals.

Taronga operates the Australian Registry of Wildlife Health (ARWH), a national wildlife health research and reference centre and diagnostic resource. ARWH is a valuable resource for wildlife health, disease surveillance and wildlife pathology.

TWH staff participate in various veterinary and wildlife education programs. These include training veterinary students through our Clinical Placement Program and foreign veterinarians through our Foreign Zoo Veterinarian Training Program. Our team frequently presents workshops and talks at conferences and seminars both nationally and internationally, and to local animal care and interest groups. Several tertiary education programs are offered through the Taronga Institute of Science and Learning, a state of the art facility for education and research.

Internship Program Outline

Taronga Zoo's veterinary student internship program is available to final year veterinary students who have a passion for wildlife and wish to pursue a career in conservation, zoo and wildlife medicine. The program provides a unique opportunity for specialised professional training and experience in a world class zoo. This will include preventative medicine; clinical medicine and surgery; reproductive management; capture, physical and chemical restraint; clinical and anatomic pathology; nutrition; wildlife rehabilitation; and ex situ conservation medicine. The experience extends across Australian native and exotic mammalian, avian, reptilian and amphibian taxa. The residency program is based at Taronga Zoo. A similar program is run at Taronga Western Plains Zoo.

Students will be supervised by one of the veterinarians and may spend time with any of the TWH staff to gain maximum exposure to all aspects of conservation, zoo and wildlife medicine.

Students are trained under the instruction and guidance of the following staff:

Dr Frances Hulst	Associate Veterinarian
Dr Kimberly Vinette Herrin	Associate Veterinarian
Dr Gabrielle Tobias	Associate Veterinarian
Dr Kresen Pillay	Associate Veterinarian
Dr Lydia Tong	Diagnostic Veterinary Pathologist
Ms Michelle Shaw	Nutritionist
Mr Paul Thompson	Laboratory Manager
Ms Elizabeth Hall	Wildlife Rehabilitation Coordinator

A Student Information and Skills Book will be provided on commencement of the internship, which includes a Skills list that sets out the general learning objectives of the program.

Completion of the skills list will require some background reading and research by the student as well as the undertaking of practical skills under the guidance of TWH staff.

Students actively participate in clinical procedures and are given opportunities to perform skills such as venipuncture, injection, radiology and basic surgery. Where possible, wildlife cases are allocated to students. Students also participate in necropsies and pathology rounds, clinical pathology and nutrition. Additional learning opportunities may arise depending on cases and students are encouraged to gain as much experience as possible through observation, self-directed research and discussion with staff.

Wherever possible, students will be given the opportunity to fulfil all requirements stipulated by their university. **If there are no specific requirements**, students will:

- Complete a communications task (e.g. deliver a presentation to staff, produce an information brochure, or write a short article for publication in a newsletter).
- **OR** undertake a brief investigation of a topic of significance to zoo and wildlife medicine (a list can be provided prior to commencing an internship).
- **OR** write up at least two case reports.

Clothing and footwear

Students are expected to wear neat and practical clothing, suitable for professional mixed veterinary practice. Students should adequately protect themselves against UV exposure. Overalls, lab coats or scrubs and other personal protective equipment will be supplied for selected clinical procedures and necropsy.

Students must bring a pair of closed shoes or boots which can be left at the zoo during their externship and worn only at the zoo. Other footwear will be needed for daily travel to and from the zoo. At the end of the externship the soles of the shoes or boots must be cleaned and disinfected.

Students must wear a name badge (can be supplied) which they are expected to wear at all times whilst at the zoo.

Daily work routine

Student working hours are 7:40am to 4:00pm, Monday to Friday. Weekend or public holiday attendance is not required.

Three clinical veterinarians are rostered on each week day, together with five veterinary nurses/keepers. On weekends a veterinarian is on call and two nurses are rostered to work.

From 7:40 to 8:30am the clinical veterinarians, pathologist and nutritionist meet to review cases and set the work agenda for the day. Following the meeting, clinical rounds are done in the hospital and in the zoo grounds. Procedures for the day generally take place in the hospital between 10:30am and 12:15pm, although larger procedures are usually scheduled earlier in the day. If necessary, procedures continue in the afternoon. Necropsy examinations usually take place in the early afternoon.

Students are able to participate in all aspects of direct animal work at the discretion of the attending veterinarian and may have the opportunity to attend selected meetings and talks.

Student Requirements

Students must have had a tuberculosis test (Taronga's preferred test is QuantiFERON-TB Gold) within 12 months prior to commencement of their internship and have proof of full vaccination against Covid-19. Q Fever, Rabies and Tetanus vaccinations are encouraged.

Travel and accommodation must be organised by students prior to arrival. We have a list of contacts for accommodation which can be provided by request. Advice regarding travel to and from Taronga Zoo can also be provided on request.

For further information and other enquiries, please contact Clare Brown, Wildlife Health Assistant, Taronga Wildlife Hospital, PO Box 20, Mosman NSW 2088, Australia.

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