TropEco Intern Projects – Townsville Campus 2022

Area	Project	Description	Goals	Positions Available	Internship level	Project Hours	Priority
Waste Management	**War on Waste Campaign - student rep**	Want to make a real difference at JCU and have some creative ideas about waste management. Join our 'JCU War on Waste' campaign and help us implement innovative waste reduction, reuse, and recycling programs to reduce waste to landfill. Use your digital media skills to develop instructional videos the campaign. This requires an all-rounder with communication skills.	• Gain hands on experience in communications, data collection and analysis • Create original digital media material, and high-impact education materials • Gain in-depth knowledge about recycling and waste management in the Cairns and Townsville regions, and Queensland wide	2-4	Intermediate to advanced	50-100+	High
Communi - cations	**Develop a new Sustainability Induction video**	Use your digital media and design skills to develop a new sustainability induction video relevant to students, staff and all JCU campuses and sites. The induction video will be available on the TropEco webpage and will align with the Sustainability action plan.	• Gain in-depth knowledge of JCU's sustainability initiatives, building design, waste procedures • Learn about and promote the Sustainability Action Plan • Use your digital media and film editing skills to communicate a high-impact induction video	1-2	Advanced	100+	High
	JCU's good news sustainability stories	Work with the Sustainability Officer to develop and implement a communications plan to promote and celebrate JCU's good news sustainability stories.	• Gain in-depth knowledge of JCU's sustainability activities • Learn about and promote the Sustainability Action Plan • Produce high-impact communications to inform the JCU community about sustainability actions	1	Standard	10-50	High

Engagement	**Become a Sustainable Development Goals Campus Coordinator**	As a SDG Coordinator and student rep on the Sustainable Development Working Group (SDWG), help to create a SDG Student Hub at your campus. JCU's SDWG is made up of staff and students. Its purpose is to support implementation of the Sustainability Action Plan. You will learn about governance structures and be part of driving sustainability action at JCU.	• Be a voice for students on the SDWG • Learn about and promote JCU's Sustainability Action plan • Join with an international community of students driving sustainability at their universities • Gain experience in communication and leadership to make a real impact in sustainability goals at JCU	1	Advanced	100+	High
Biodiversity/ Environment	**Ecological restoration**	We will be clearing weeds, collecting seeds and cuttings, repairing soil, selecting the best plants for the site through a range of features and traits, planting out sites, installing fauna habitats, monitoring establishment and maintaining the sites. This project aims to expand on what you have learnt about habitat restoration, as well as allow you to implement these teachings in a real world setting to better equip you for both design or field work after you leave JCU.	• How to identify a range of local and introduced plants • How to best control weeds using a range of techniques • How to design a rehabilitation site, as well as implement and manage your site • How to use a plant traits to select the best habitat options for local fauna • A wide range of establishment and control techniques such as deep cell planting or the use of inoculants • Best practice seed collection	2-7	Intermediate	50-100	High
Biodiversity/ Environment	**Flora mapping**	This project involves mapping hundreds of trees, divided into various categories, as well as mapping our campus hollows. The project aims to increase JCU's ecological management and sustainability, to better guide development and operational schemes.	• Gain hands on experience with mapping on ground data points • Learn to identify a wide range of NQ flora • Learn to more effectively track and record hollows.	2-6	Intermediate	50-100	High
	Greenhouse and Poly-house operations	This project involves working in a commercial grade nursery with over 500 species, including endangered and never before cultivated species. Students will work in all levels, from on ground operations such as weeding and repotting to	• How to correctly identify and propagate a wide range of plants from seed, sections or cuttings • How to catalogue a greenhouse collection • Weeding, dividing and moving stock	1-6	Intermediate	50-100	High

Biodiversity/ Environment		assisting in low level management, such as biological controls and material allocation.	• Cross pollination and labelling • Working with special need plants such as carnivorous or restricted species • General maintenance				
	Biome trail establishment	This project is aimed to create a world botanic tour on campus, as well as better develop our famous hills walking trail. The project involved planting, establishing and mapping over 100 species from 6 continents, to create an interactive walk experience on the JCU campus.	• What is involved in species selection for none-native flora • How to establish a wide range of plant types • Mapping interactive trails	2-6	Intermediate	50-100	Low
	Ecological Landscape Renewal	This placement is required to assist with landscape repair and design, with the goal of making more sustainable landscaped areas on campus, holding a merge between sustainability, landscape appeal and ecological practices. These include creating more fauna friendly gardens such as bee gardens or skink gardens, increasing the compatibility of nature corridors with our target fauna and decreasing water consumption.	• How to design and plan a landscape project or repair • How to implement sustainable and ecologically minded aspects to an urban landscape environment • How to select the right species for the right location • How to manage and mitigate human interactions with fauna in an urban setting • Best practice seed and cutting collection and propagation	1-8	Intermediate	50-100	Medium
	General placement	Field based ecology focused on natural rehabilitation using a wide range of target species, sustainable landscaping, propagation of Australian native flora, identification of flora, fauna camera trapping, greenhouse operations and more…	• How to correctly identify, collect and propagate flora • Sustainable landscape design and installation • Rehabilitation of natural or degraded landscapes • How to promote the best habitat for fauna • Cataloguing and general maintenance	2-2	Intermediate	50-100	Medium
	Germination research and	This project involves processing poorly known or un-successfully propagated flora for germination and propagation trials. The	• Data collection and compilation • How to force or trigger germination in challenging or specialized species	1-2	Intermediate	50-100	Medium

Biodiversity/ Environment	**Myrtle Rust initiative**	specimen are predominantly collected from national parks under our research permit, and are given a range of potential stimulants to trigger a germination. The triggers and timeframes are recorded for further use, then the excess plants donated to our partner groups or used in our landscaping to create teaching or ex-situ conservation gardens. Please note that students are not taken into the field as part of this project due to sensitivity and JCU policy.	• Biosecurity and safety standards and protocols • Seed processing and banking • Working with Endangered species • Running a high-profile interagency conservation project				
	Bare-Rumped Sheathtail Bat Recovery	This project aims to focus on a key species approach to rehabilitation to create a more suitable habitat for our endangered native bat, and improve known sites with both natural and artificial habitat modifications.	• Experience working with an endangered species recovery • Basic flora ID • Artificial habitat design and installation	1	Intermediate	50-100	Low
	Eucalyptus paedoglauca translocation and recovery	This project has been established to promote and actively recover a Vulnerable species on campus, the Mt Stuart Ironbark.	• Data collection and records • Propagating a EPBC triggered species • Learning what is involved in working with a threatened species	1 -3	Standard	10-50	Medium
	Backhousia tetraptera translocation and recovery	This project has been established to promote and actively recover a Critically Endangered species on campus, the Mt Stuart Myrtle.	• Data collection and records • Propagating a EPBC triggered species • Learning what is involved in working with a threatened species	1-2	Standard	10-50	Medium
Transport	**Bike workshop volunteer**	Working with our bike mechanic to repair and recover bikes on campus for a sustainable cause.	• Hands on experience repairing bikes • Basic intro to common tools and how to use them	1-2	Intermediate	50-100	Medium
JCU Rotary Sunshine Edible Garden	**Community Garden volunteer**	A community garden housing a large collection of edible flora, including a wide range of rare and native species	• Learn the basics of horticulture and how to grow your own food • Get experience caring for various crops and fruits, including the use of biological promoters over chemical	1-4	Intermediate	50-100	Medium