

Editorial and Introduction to the Special Issue

This special issue of *Scientia Bruneiana* features 12 original papers, including one review article. The issue honours two founding members of FOS, whose work established the strong foundation on which the faculty has grown over the past three decades.

David Sydney Edwards (1948-2025)



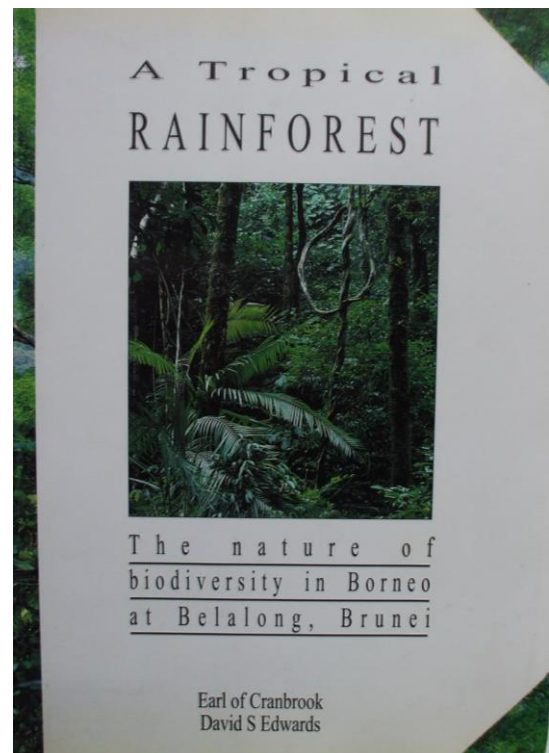
David Edwards was a pivotal figure in the foundation and consolidation of the Biological Sciences programme at Universiti Brunei Darussalam. He served as the Head of the Biology Department for 6 years (until 1993), then as Dean of the Faculty of Science for another 11 years. He was also President of the Brunei Nature Society for 24 years.

David was born in Bristol on 13 March 1948, to Anthony Edwards, a GP, and Margaret (Lamb), an anaesthetologist. He attended Clifton College school in Bristol, and took his Bachelor's degree and PhD in Botany at Cardiff University, specialising in the early colonisation of the Earth's surface by plants in the Devonian period.

David worked as a researcher and lecturer in botany for 11 years at the University of the Gold Coast in Ghana, where he met and in 1981 married a fellow academic, Alice Dzakpasu.

They went on to have three children, Awo, Robert and Susan.

In 1986, David and his young family moved to Brunei, where he became one of the founding members of the Faculty of Science at Universiti Brunei Darussalam. He was Head of Biology from 1987 to 1993, in which role he helped to establish permanent tropical rainforest plots in Brunei. In 1990-92 he also collaborated with the Earl of Cranbrook on the Brunei Rainforest Project, a joint initiative between UBD and the Royal Geographical Society that led to the foundation of the Kuala Belalong Field Studies Centre, in one of the most picturesque and pristine corners of the Brunei rainforest, as well as the publication of a 389-page book showcasing the beauty and biodiversity of the area.



Picture credit:

<https://www.amazon.com/Tropical-Rainforest-Nature-Biodiversity-Belalong/dp/9810055315>

In August 1993, David was appointed Dean of the Faculty of Science, succeeding a mathematician, A. L. Williams. In this capacity, David helped strengthen scientific education in Brunei, represented the university and government in delegations to the UK and Canada, and played an important role in establishing the Institute of Health Sciences at UBD.

After stepping down from the Deanship in 2004, David was elevated to the position of UBD's Senior Academic Advisor, and in 2005 was awarded the Meritorious Service Medal by Brunei's Sultan Hassanal Bolkiah.

Between 1987 and his eventual retirement in 2011, David also worked tirelessly as the President of the Brunei Nature Society. Among his many achievements were helping to demarcate the boundaries of the Heart of Borneo Initiative – a 2007 joint declaration by Brunei, Indonesia and Malaysia aimed at protecting one of the world's largest remaining undeveloped rainforest areas – and promoting local community participation in the conservation of Brunei's rich biodiversity.

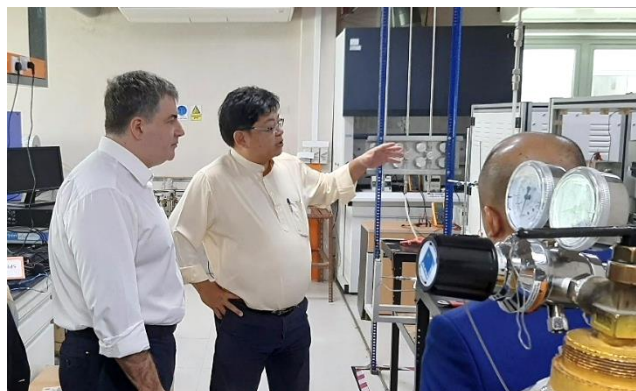
David died peacefully at his home in Bristol on 25 August 2025, at the age of 77. He is survived by his wife Alice, three children, three grandchildren, and his sister Caroline. He will always be remembered in Brunei for his unflagging efforts to encourage education and research on tropical forests, and in particular their conservation.

(Text by Malcolm Anderson, Managing Editor, with many of the details taken from the published obituaries written by Ulmar Grafe and David Lane.)

Jimmy Lim Chee Ming (1966–2026)

Jimmy Lim contributed enormously to the development of Universiti Brunei Darussalam. He served as Dean of the Faculty of Science, member of the UBD Senate and founding Director of the Centre for Advanced Material and

Energy Sciences (CAMES). His administrative career was marked by the relentless pursuit of institutional capacity building and internationalisation, laying the foundation for advanced materials and energy research in Brunei.



Jimmy (centre) briefing Professor Sir Konstantin Novoselov (2010 Nobel Laureate in Physics) during his visit to CAMES in 2020

Born 7 August 1966, Jimmy demonstrated a natural inclination toward scientific inquiry from a young age, frequently formulating hypotheses and conducting experiments with everyday household objects during his childhood. This innate curiosity transitioned into a lifelong dedication to academia. In 1989, he graduated as part of the inaugural cohort of UBD, earning a bachelor's degree in physics and paving the way for his subsequent appointment as a lecturer. Jimmy continued his academic journey in the United Kingdom, earning an MPhil from the University College of Swansea in 1992, followed by a PhD in Physics from the University of Warwick for work on automated ultrasound techniques for studying magnetoelastic effects in rare earth metals and alloys in 1998.

Throughout his career, Jimmy was a passionate lecturer and outspoken faculty member who was never afraid to share his views or stand up for what he thought was right. He was also an active researcher, contributing to areas ranging from the detection of magnetic phase transitions in metals and alloys to the suitability of various renewable energy technologies for deployment in tropical

climates. Jimmy's scholarly contributions helped set the research agenda and established the momentum needed for conducting world-class research in the physical sciences at UBD.

In his first senior administrative appointment, Jimmy became Dean of the Faculty of Science in August 2009. As Dean, Jimmy oversaw the initial implementation of UBD's flagship GenNEXT degree programme and prioritised outward-looking collaborations that integrated the Faculty of Science into the regional scientific ecosystem. He helped establish or strengthen partnerships with several globally leading institutions, most notably the National University of Singapore, Kagawa University and Osaka University.

After his tenure as Dean, Jimmy founded the Energy Research Group to advance research into alternative energy technologies for the decarbonisation and diversification of Brunei's economy. Working together with fellow physicist Peter Hing, Jimmy secured a series of multimillion-dollar grants to build and equip the Science and Technology Research Building at UBD. By 2014, the success of the Energy Research Group led to its conversion into CAMES, with Jimmy as its first Director, a position he held until 2022.

As Director of CAMES, Jimmy worked tirelessly to attract funding, hire staff, and promote the new research centre regionally and internationally. Initial work at the centre focused on solid oxide fuel cells, wind energy, thin film photovoltaics and functional coatings, with all areas resulting in numerous scientific publications and the filing of several local and international patents. Despite his heavy administrative load during this period, Jimmy remained a committed lecturer, leading to him being awarded the Excellent Teacher Award by His Majesty Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah, Sultan and Yang Di-Pertuan of Brunei Darussalam during the 28th Brunei Teachers' Day celebration in 2018. He was later awarded the Leadership Excellence Award by UBD in 2021 for his contribution to the founding and development of CAMES.

Jimmy passed away peacefully on 12 January 2026 at the age of 59. He is survived by his wife Lee Hoon, their two children, Ya Wen and Yong Tsen, and his two brothers, Jeffery and Johnson. His visionary leadership, openness and infectious laughter will never be forgotten by those who worked with him.

(Text by James Jennings, Associate Editor and Deputy Dean of the Faculty of Science)

From David Marshall, Editor-in-Chief

The response of past and present staff of FOS to contribute to all but one of the papers of this special issue, is most pleasing. Moreover, 14 of the contributing authors were staff or senior students associated with UBD during the tenure of both David and Jimmy. These contributors are Norhayati Ahmad, Hanyrol H. Ahmad Sah, Bee Biaw Ang, Joseph K. Charles, Satish Choy, Ulmar Grafe, M. Belal Hossain, David J.W. Lane, David J. Marshall, Faizah Metali, Rahayu Sukmaria Sukri, Hussein Taha, Kushan Udagaya Tennakoon, and Gabriel Yong (Faculty of Arts and Social Sciences).

The topics covered in this issue span a wide range of natural environmental subjects relevant to Brunei. Four papers provide species lists or identification information, which is especially valuable given the ongoing biodiversity threat: Ahmad Sah *et al.* on herpetofauna,¹ Aziz *et al.* on seeds,² Charles *et al.* on avifauna,³ and Marshall *et al.* on rocky shore invertebrates.⁴ Other contributions examine animal organisms and their ecology, including Grafe on frog calls,⁵ Lane and Marshall on new seastar records,⁶ and Johari *et al.* on marine benthic ecology.⁷ The issue also includes studies on tree ecology and the evolutionary morphology of ferns, with articles respectively by Tuah *et al.*,⁸ Yusoff *et al.*,⁹ and Cicuzza.¹⁰ In addition, two papers address applied or veterinary topics: Patterin *et al.* on the wound-healing properties of stingless bee honey¹¹ and Palyoga *et al.* on uterine rupture in goats.¹²

I thank all reviewers of this special issue, including many FOS staff members. I am especially grateful to Malcolm Anderson for taking on all the production work. I also extend special thanks to Malcolm and James for writing the dedications to David and Jimmy, respectively. Finally, thanks are due to the Dean of Science, Dr Lee Hoon Lim, for her encouragement and support of this special issue.

- [1] H. H. Ahmad Sah *et al.*, “Updated checklist of the herpetofauna of Brunei Darussalam”, *Scientia Bruneiana*, 24, 5-33, 2025.
- [2] M. P. Aziz *et al.*, “Identification of seeds and seedlings of different species of plants found in Universiti Brunei Darussalam”, *Scientia Bruneiana*, 24, 34-54, 2025.
- [3] J. K. Charles *et al.*, “Decadal change in the kerangas avifaunal complex in Universiti Brunei Darussalam, Brunei Darussalam”, *Scientia Bruneiana*, 24, 55-76, 2025.
- [4] D. J. Marshall *et al.*, “Natural and artificial rocky shores of Brunei, including a preliminary checklist of invertebrate species”, *Scientia Bruneiana*, 24, 77-110, 2025.
- [5] T. U. Grafe, “Influence of sound pressure level of frog advertisement calls on attraction of frog-biting midges”, *Scientia Bruneiana*, 24, 111-116, 2025.
- [6] D. J. W. Lane and D. J. Marshall, “Four new records of *Astropecten* seastar (Asteroidea: Astropectinidae) from Brunei”, *Scientia Bruneiana*, 24, 117-127, 2025.
- [7] A. Johari *et al.*, “Benthic faunal ecology in the algal turf zone of a Bornean rocky shore: the influence of habitat-forming species”, *Scientia Bruneiana*, 24, 128-143, 2025.
- [8] W. Tuah *et al.*, “Stem abundance, basal area and species richness of intact and degraded *Kerapah* forest plots in Lumut, Brunei Darussalam”, *Scientia Bruneiana*, 24, 144-155, 2025.
- [9] A. Yusoff *et al.*, “Foliar trait and nutrient differences between invasive *Acacia* and native species in disturbed coastal *Kerangas* forests of Brunei Darussalam”, *Scientia Bruneiana*, 24, 156-169, 2025.
- [10] D. Cicuzza, “Tropical fern flora of Brunei shows entire fronds in epiphytic species and divided fronds in terrestrial species: Two working hypotheses to explain such morphological differences”, *Scientia Bruneiana*, 24, 170-178, 2025.
- [11] F. S. Patterin *et al.*, “A comparative evaluation of the wound healing properties of stingless bee honey in diabetic animal models”, *Scientia Bruneiana*, 24, 179-191, 2025.
- [12] H. Palyoga *et al.*, “A case report: Rapid progression of postpartum uterine rupture to sepsis and multi organ dysfunction (MOD) in a Boer goat (*Capra aegagrus hircus*)”, *Scientia Bruneiana*, 24, 192-197, 2025.