

Bentham-Moxon Trust

Summaries of grants awarded in November 2021

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The Trustees made their awards in November 2021 for projects running between 1 January and 31 December 2022

Section A: Awards for plant and fungal collection and field research expeditions

Kew's scientists work with international partners to address key botanical issues facing the world such as climate change and maintaining biodiversity. Bentham-Moxon Trust is an independent small grants scheme and in this section the Trustees have contributed towards seven of Kew's research projects running in 2022 including five in Africa, one in North America and one in South America.

- ❖ **Dr. Rafal Gutaker** awarded **£3,495** to fund fieldwork and visits to other institutions in Madagascar researching *Rojo*. A novel and distinct genetic group of rice occurring in Madagascar, named rojo, was characterized this year. Rojo is sensational, owing to its distinctness, its wide use in Madagascar, as well as its unique and superior flavour profile, culinary properties, and nutritional qualities. It is likely that rojo rice is a result of pre-colonial spontaneous hybridization of Asian rice (*Oryza sativa*) with a local wild relative in Madagascar (*O. longistaminata*). The proposed trip to Madagascar has three main aims: (1) collection of specimens and data to inform use and conservation of rojo rice and its wild relative; (2) establishing new partnerships, and bolstering existing ones, in Madagascar; and (3) using this pilot study to leverage large grant application to study the origins and future of rojo rice. Within the collection effort, a diversity panel of at least twenty rojo rice cultivars and twenty wild populations of its wild relatives will be constructed, accompanied by environmental data and farmers interviews. Of particular interest are investigations is rojo genomic make up, nutritional value, local adaptations, threats associated with climate change and potential for broader cultivation and export.
- ❖ **Ms. Anna Haigh** awarded **£2,200** to part-fund fieldwork in Bolivia, researching monocots of rock outcrops. Bolivia is one of the highest priority countries in Kew's science strategy. Kew has well established links in Bolivia, particularly in Santa Cruz with the Museo Historia Natural Noel Kempff Mercado (MHNNKM). This will enable Anna, a senior Curator Botanist in the Kew Herbarium, to collaborate on the project "Biodiversity, biogeography and conservation of rock outcrop vegetation of tropical South America". She will accompany Rosie Clegg (PhD student Kew/University of Exeter) and Maira Martinez (Botanist, MHNNKM) on a field trip to sites of rock outcrops in the Chiquitania area of eastern Bolivia, department of Santa Cruz. Anna will bring expertise on monocots to the project, enabling high quality collections and identification of this group to be made. This will contribute to documenting the floras of the rock outcrops enabling greater understanding of these little studied, but globally threatened environments. A training element is included with a workshop in the Araceae family offered to staff and students at the museum. Skills and expertise will also be shared during fieldwork enriching the knowledge of all members of the expedition.

- ❖ **Dr. Manuel Luján** awarded **£2,599** to fund fieldwork and research visit in Mexico, researching tree species diversity. Mexico has ca. 23,000 vascular plants and is the fourth most floristically rich country in the world. The highest tree species diversity in the country is present in the southern states of Chiapas and Veracruz. However, most of this plant diversity has not been sufficiently documented. Plants in some of the most diverse regions such as the Chiapas Highlands, persist in unprotected remnants of montane forests that remain poorly collected, and are under increasing pressures from commercial agriculture and development.
This project aims to use the woody plant family Clusiaceae as a model to describe tree species diversity in southern Mexico. Most of the species of Clusiaceae in Mexico are distributed in the southern region of the country, and a species account for the family has not been completed. During this research, species of Clusiaceae will be studied in local herbarium collections as well as in the field to better understand patterns of tree diversity in the region, answering questions such as how many species there are and where are they distributed. Furthermore, field expeditions will be targeting species that are only known from a handful of collections, as well as forest remnants in highly diverse yet unprotected areas
- ❖ **Mrs. Landy Rajaovelona & Mr Andry Rakotoarisoa** awarded **£1,700** to part-fund fieldwork in Madagascar undertaking a flora inventory of Tsaratanana, the highest mountain in Madagascar. The first of their trips will be taken in conjunction with **Dr. Jan Hackel (Kew)**, and use part of his 2019 award. At 2,876 m. Tsaratanana is the highest mountain and among the most poorly explored areas in Madagascar. It is covered in dense forest and ericoid thicket. The known flora of Tsaratanana currently includes seventy-two species known only from the area, with many more awaiting scientific documentations due to the unique and enigmatic flora. The aim of this trip is to explore and document the flora and vegetation of Tsaratanana. Their specific objectives are facilitating general collecting trips by the Kew Madagascar Conservation Centre (KMCC) botanists and to fill the gap in knowledge in this important but threatened and poorly explored area in Madagascar. The collections data on plants from the area will be shared by making the data accessible to users through the iNaturalist platform. During the two trips herbarium specimens, DNA samples and seeds will be collected, and rapid inventories undertaken through the use of smartphones and the iNaturalist application. The direct outputs of this project are herbarium specimens and seed collection for ex-situ conservation, DNA for tree of life research, online data in iNaturalist, one peer-reviewed publication, blogs and tweets at Kew website and @TeamKMCC.
- ❖ **Mr. Franck Rakotonasolo** awarded **£3,000** to fund fieldwork in Madagascar undertaking a flora inventory of the Kasijy reserve. Due to the difficulty of access the Kasijy reserve in the western area is one of the poorly explored sites in Madagascar. So far, only thirty-one collections have been collected from Kasijy (24 species and one family endemic to Madagascar). These collections were done by Perrier de La Bâthie in 1903-1904 and the most recent were done by Morat in 1974. Their goal for these field trips in Kasijy is to explore and document the flora and vegetation of the reserve. Their specific objectives are (i) to enable Kew Madagascar Conservation Centre (KMCC) botanists to continue to undertake general plant collections and to fill the gap in knowledge in a poorly explored area of Madagascar, (ii) to make collections data on plants from the area accessible to users through the iNaturalist platform. During the two trips herbarium specimens, DNA samples and seeds will be collected, and rapid inventories undertaken through the use of smartphones and the iNaturalist application. The direct outputs of this project are herbarium specimens and seed collection for ex-situ conservation, DNA for tree of life research, online data in iNaturalist, one peer-reviewed publication, blogs and tweets at Kew website and @TeamKMCC.
- ❖ **Dr. Ana Rita Giraldes Simões** awarded **£2,177** to fund fieldwork in Ethiopia researching African Merremioids (Convolvulaceae). African Merremioids are a group of thirty species within the sweet potato family (Convolvulaceae) that occupy a range of habitats, from tropical forests to grasslands,

mainly in Eastern Africa, with eleven of these species present in Ethiopia and Somalia. Their outstanding variation in pollen patterns is intriguing, and raises the hypothesis that highly aperturate pollen have evolved as an evolutionary adaptation to drier conditions. However, these species are still poorly known and collected, which hinders broader evolutionary studies of the group. A comprehensive taxonomic revision of the group is ongoing, which requires completing morphological descriptions, compiling geographic information, and collecting DNA and pollen samples for evolutionary studies to follow suite. The funding provided will allow the targeted field collection of these species, ecological observations and examination of specimens in the main local herbarium (ETH); seeds and voucher specimens will also be collected, which will enrich Kew's collections of these rare species. Local students and colleagues will be involved in this work, and a short course on taxonomy of Convolvulaceae will be offered, with the prospect of raising awareness of the study and conservation of this plant group and building a foundation for future collaborative projects.

- ❖ **Miss. Jenny Williams** awarded **£4,735** for fieldwork in Madagascar. Accompanied by **Stuart Cable** for the fieldwork in Madagascar, drones will be used to determine effective post-fire regeneration strategies in Madagascar. Maintaining and restoring the integrity of intact natural forests may be as important as reducing and halting destructive deforestation. They plan to trial innovative methods, using low-flying drones, to assess post-fire natural regeneration in the dry forest of Ankarafantsika National Park, Madagascar which suffered extensive fires during the 2019 dry season (May to October). Our ultra-high-resolution photographs (<10cm) captured by drones in early 2020 provided under-cloud, near-real-time, and uniquely detailed imagery of the burnt forest areas. Building on this previous work we will re-survey three main areas of burnt forest, approximately 2-years after the original post-burn survey, using low-flying drones and ground-based field collections. The extraction of fine-scale 3D forest models, including volume and crown height, will be used to assess natural forest regeneration potential in combination with more traditional species and structure information. This assessment of natural regeneration may indicate whether restoration intervention could be appropriate to ensure some recovery of biodiversity. Very little is known about the dry forests of Madagascar and understanding initial post-burn forest recovery; pioneer species, species diversity and vegetation canopy development will provide valuable information relating to post-burn succession of this unique dry forest system and the potential requirement for restoration intervention.

Section B: Overseas botanists and mycologists visiting, training or working at Kew

Providing training for botanists and mycologists from around the world helps Kew achieve its aim of training the next generation of plant and fungal scientists. At the same time Kew also invites expert scientific collaborators to work at Kew, analysing and improving the quality of its collections. The Trustees have made ten awards for these types of projects running in 2022. The awards in this section are always given via a Kew staff member.

- ❖ **Dr. Martin Cheek** awarded **£2,450** to part-fund a seven-week visit to Kew for **Miss Denise Molmou (Guinea)** to work on the project "Taxonomy and conservation of *Neocarya macrophylla*". To aid achieving her PhD research on the gingerbread plum (*Neocarya macrophylla*), a tree species native to Guinea, a research stay was funded. The activities planned were two-fold. Firstly, to work with Dr Martin Cheek and Charlotte Couch (coordinators of the IUCN SSC West Africa Plant Red List Authority) to receive training in and preparation of an IUCN Red List assessment for *Neocarya macrophylla*. Additionally, a Species Conservation Action Plan is to be prepared for this economically relevant tree species. At Kew, Miss Molmou will be able to benefit from the expertise of Dr Cheek and Ms. Couch,

and to access the Kew Herbarium collections. Secondly, this would extend an already funded four-week research stay at Kew to be trained in and perform biochemistry lab work with Dr Melanie-Jayne Howes on underutilised plant species indigenous to Guinea including *Neocarya macrophylla* funded by an Emily Holmes Scholarship grant. If it can be shown through her research that *N. macrophylla* has a high commercial value, clearing of natural habitat where the tree grows might be halted, contributing to conservation and maintaining ecosystem services.

- ❖ **Dr. Laura Martinez Suz** awarded **£2,837** to part-fund a four-week visit to Kew for **Dr Luis Palazzesi (Argentina)** to work on the project "Interdisciplinary collaboration to study plant and fungal diversity along a topographic gradient in central Patagonia". A steep west-to-east ecological gradient prevails across the Andes in southern Argentina (central Patagonia) driven by shifts in elevation, climate, and soil types. Ecological gradients are often narrow and relatively rich in biodiversity; therefore, conservation efforts need strategic investment in botanical and mycological surveys to inform protection of these vulnerable ecosystems. The aim is to generate baseline taxonomic and phylogenetic diversity data for native and invasive plant species and their associated symbiotic fungal communities, across an 80 km topographical gradient in Patagonia. Phylogenetic trees are essential to understand the processes of community assembly; Dr Luis Palazzesi, during his stay at Kew, will use novel methods to build a large plant phylogenomic tree with the DNA sequences obtained during the project, and use it to estimate phylogenetic diversity, incorporating both the number of species and their evolutionary histories. These data will be then combined with soil fungal diversity and functional data in soil generated for the same sites. Data obtained in this project can potentially inform plant and fungal conservation efforts, environmental policy and ecosystem management (long-term impact). The expectation is that this project will be developed into a long-term collaboration which will allow using these diversity data as baseline against which to assess the impact of future ecosystem changes. Ultimately, the project aims at increasing awareness about habitat loss and forest degradation and their impact in two main functional guilds: plants and mycorrhizal fungi.
- ❖ **Ms. Alison Moore and Dr. Alexandre Monro** awarded **£2,440** to fund a one-week visit to Kew for **Dr Max MJ van Balgooy** on the project "Solving identity problems in Kew's Malesian Herbarium species". Max is the world expert on Malesian plants. His most famous publications include a trilogy on Malesian Seed Plants consisting of two volumes of portraits of plant families and a volume on the identification of plants through spot characters, now in its second edition. Throughout his career he has collected thousands of herbarium specimens and identified Malesian plants across several world herbaria. At Kew, Max will study the Euphorbiaceae sensu lato, help the Asia team identify unnamed specimens from Malesia, and run a series of workshops on spot-character identification.
- ❖ **Dr. Hanna Oldfield** awarded **£3,480** to fund travel grants for two participants to visit Millennium Seed Bank, Wakehurst for 2 weeks to undertake the Kew's highly regarded Seed Conservation Techniques training course. The two partner participants will during 80 hours of lectures and practical training, learn best practice and innovative methods for seed banking, according to the published Millennium Seed Bank Partnership (MSBP) Seed Conservation Standards. Aimed at encouraging the high-quality collection, processing and storing of wild plant species as part of ex-situ conservation projects within the MSPB, the training will enable the grant beneficiaries to contribute to the transfer of knowledge in their countries and support national or regional initiatives to protect plant biodiversity
- ❖ **Dr. Timothy Utteridge** awarded **£3,380** to fund an eight-week visit to Kew for **Dr Avelinah Julius (Malaysia)** to work on the project "Toward a Flora Malesiana account of Primulaceae - revision of *Ardisia* subgenus *Crispardisia* (Primulaceae) in Peninsular Malaysia". This project is to produce a rapid taxonomic revision of *Ardisia* subgenus *Crispardisia* (Primulaceae-Myrsinoideae) in Peninsular Malaysia. Primulaceae is one of the key focus groups in the Asia Team of Accelerated Taxonomy, with the aim to produce regional revisions, phylogenies and innovative monographs toward the production of a 'Flora Malesiana' account (the biogeographic area of SE Asia including Malaysia and Indonesia). Dr.

Julius has published several floristic accounts for the Flora of Peninsular Malaysia (FPM), and worked with Dr Timothy Utteridge on various accounts of *Ardisia* for FPM. This visit will enable them to work in close collaboration to examine morphology of the group using RBG Kew's herbarium material, and attempt to complete the revision with submission to Kew Bulletin during the two-month period. At the same time, this visit will allow Dr Julius to explore innovative ways to treat the remaining species of the genus in Peninsular Malaysia with interactions with other members of the Accelerated Taxonomy Priority, including showing such methods to workers at the Forest Research Institute Malaysia (FRIM).

- ❖ **Dr. Timothy Utteridge** awarded **£3,500** to fund a four-week visit to Kew for **Mr Oliver Paul (Papua New Guinea)** to work on the project "Taxonomic Revision and Conservation status of *Quintinia* and other Escalloniales in Papua New Guinea". *Quintinia* (Paracryphiaceae) is a poorly studied genus especially in Papua New Guinea and New Guinea as a whole, one of the major global plant diversity in the world. All thirteen known species are endemic and some of the specimens are highly likely new to sciences. Using Kew's extensive New Guinea collections, he will carry a formal taxonomic study, helping the identification of uncertain collections, and carry out an evaluation of conservation status of all species using IUCN Red List guideline. This will fill the gap of the knowledge of the Malesian almost-exclusive genus and its conservation effort. It will also be possible to expand the network for the New Guinean plant's collaborator.
- ❖ **Dr. Timothy Utteridge** awarded **£2,250** to fund a five-week visit to Kew for **Mr Pantamith Rattanakrajang (Thailand)** to work on the project "A revision of *Neuropeltis* (Convolvulaceae) in Paleotropics, with conservation assessments". The genus of interest is *Neuropeltis*, a small genus belonging to the morning glory family (Convolvulaceae) distributed throughout Afro-Asian tropics. According to the protologue, the outstanding generic characteristics comprise an accrescent bract subtending the fruit, appearing like a winged fruit, which facilitates the wind dispersal. A few reports have separately studied this genus in only continent scale. This study therefore aims to compile globally taxonomic data of all species from Africa and Asia through the collection visit at Kew Gardens for conducting the further generic revision. The results in the investigation of the herbarium specimens and historical literature from this visit yield several fundamental data involving the taxonomic treatment and reveal the morphological variation of each taxon from all available distribution areas. The conservation status will be also assessed via the inspection of all distribution ranges. Pending the outcomes from this ongoing research across the whole genus, a firm decision can be taken to summarise the global revision of *Neuropeltis*. Consequently, the achievement in this project is able to be a taxonomic database and interpret the natural history of *Neuropeltis* from the examination of plant specimens merged with the historical and current data, leading to conservation planning of forests ecosystems
- ❖ **Dr. Timothy Utteridge** awarded **£2,300** to part-fund a six-week visit to Kew for **Assoc. Prof. Ulf Swenson (Sweden)** to work on the project "Updating the classification of Australasian Sapotaceae at the Kew Herbarium". The plant family Sapotaceae is distributed in all tropical countries and includes 1300 species. Systematics based on only morphology, without phylogenetic analyses, have placed the species in 125 to 56 genera. Fifteen years of molecular studies have demonstrated that natural genera are 70–75. For example, lots of genera were lumped in *Pouteria*, forming a genus of +300 species across the tropics. We now know that *Pouteria* is a small genus of 6–10 species and all other species must be accommodated under different names. Assoc. Prof. Ulf Swenson has developed a new classification based on molecular phylogenetics and morphological data. This visit will enable Ulf, the world-leading systematist of Sapotaceae, to bring order in Kew's collection, including a large backlog from Asia, and searching for undescribed species. The task is extensive and his intention is to begin with collections from Australasia, focusing on New Guinea and Indonesia
- ❖ **Dr. Maria Vorontsova** awarded **£2,380** to fund a three-week visit to Kew for **Miss Millicent Akinyi Oulo (China)** in respect of the project " Morphological analysis of African grasses: *Ctenium*,

Kampochloa & Trichoneura". Within tribe Cynodonteae is the taxonomically interesting genus *Ctenium*. The relationship within its members and between this genus and closely related genera (*Trichoneura* and *Kampochloa*), remains poorly resolved with no previous morphological study to support this and limited taxon sampling in the evolutionary relationship studies done to date (Longhi-Wagner & Cope, 2014, Peterson et al., 2014, Smith, 1896). Longhi-Wagner & Cope (2014) & Longhi-Wagner & Renvoize (2004) already described the distinguishing characters for the identification of genus *Ctenium* species, but these characters appear problematic in distinguishing *Ctenium concinnum* and *Ctenium newtonii*. In this study, molecular data is used to select diagnostic characters for morphological study for better results. This grant provides an opportunity to access the vast herbarium specimen collections of species of these three genera available at Kew, and conduct a morphological study. This will also be an opportunity to receive training on grass spikelet morphology from Dr. Maria Vorontsova, which will greatly impact Millicent's long-term dream of improving the grass identification knowledge in her country Kenya. Results from this study will be combined with data from the ongoing molecular analysis and published in *International Journal of Molecular Sciences*.

- ❖ **Dr. Maria Vorontsova** awarded **£2,650** to fund a two-week visit Kew for **Dr. Botovao Auguste Ramiandrisoa (Madagascar)** to work on the project "Connecting Mahajanga University with Kew to understand Madagascar's western grasses". Dr Botovao Auguste Ramiandrisoa, junior lecturer at the University of Mahajanga, will travel outside Madagascar for the first time to spend ten days at the Kew herbarium working with Dr Maria Vorontsova. Dr Ramiandrisoa will bring his team's recent grass collections from western Madagascar and will work to identify them together with Dr Vorontsova during the visit. Dr Ramiandrisoa will also be networking with Kew Science during his visit, and will give a presentation on the University of Mahajanga and their botanical work. It is hoped that this will forge a new productive long-term collaboration along with high quality specimen identifications, two MSc theses, a journal paper, and a contribution to their understanding of the grasses and savannas of western Madagascar.

Section C: Travel to botanical and mycological institutions

Kew's collections provide a rich resource for plant and fungal enquiry. However, their usefulness can be enhanced by visiting and working at other institutions around the world in areas where Kew's collections or expertise are lacking. The Trustees have supported three projects for 2022, two in Europe and one in North America.

- ❖ **Dr. Iain Darbyshire** awarded **£1,620** to fund a visit to Herbaria of the Centro Studi Erbario Tropicale at the University of Florence and the Muséum National d'Histoire Naturelle, Paris to study the collections of *Barleria* (Acanthaceae) in preparation for a monograph. Research visits to the herbaria of Centro Studi Erbario Tropicale at the University of Florence (FT) and the Muséum National d'Histoire Naturelle, Paris (P) will be conducted to study the substantial holdings of the genus *Barleria*. This research will provide an important contribution to an ongoing monograph of *Barleria*, providing morphological and geographical data critical to our understanding of the diversity and distribution of this genus. *Barleria* is a species-rich plant group of high conservation concern given that it contains unusually high numbers of range-restricted species in a wide range of plant habitats across the tropics of Africa and Asia. Data from the ensuing monograph will support the evidence base for plant conservation planning through highlighting centres of endemism and key localities for threatened species in this important plant group.
- ❖ **Dr. Ilia Leitch** awarded **£1,944** to fund Elaine Wang's (Kew PhD student) three-week visit to Professor Wendel's lab in Iowa State University, USA in respect of the project "Acquiring state-of-the-art skills to

explore why polyploid plants are so successful”. Polyploidy is a process that combines multiple sets of chromosomes into the same nucleus. It has impacted the evolution of all flowering plant species and can alter the physiological, morphological and metabolic properties of a plant. Furthermore, it generates new species, causes ecological diversification, stimulates plant vigour and increases plant resilience. Nevertheless, the step increases in genome size (the amount of DNA in the nucleus) that comes with polyploidy also has costs, in particular those associated with larger cells and increased nutrient demands. Consequently, genomes lose DNA after polyploidy, a process that is little understood, and which is the focus of this project. In Professor Wendel’s lab Elaine will receive state-of-the-art training and access to unique, unpublished datasets, enabling the addressing of key question relating to DNA loss after polyploidy. Professor Wendel took a six-month sabbatical in Kew in 2019, and we build here on that relationship here. The visit will lead to transferrable skills to help Kew scientists, new genetic insights that could inform plant breeders, and new understanding of the evolution and resilience of biodiversity.

- ❖ **Dr. Benoit Loeuille** awarded **£615** to fund research visits to Portuguese herbaria for the project “Flora Zambesiaca: Compositae (Astereae, Athroismeae, Inuleae, Senecioneae)”. This project aims to study plant specimens of the Daisy family (Compositae) collected by Portuguese naturalists in the 19th and 20th centuries, mostly in Mozambique, which are kept in the National Museum of Natural History and Science in Lisboa and at the University of Coimbra, in Portugal. This study is an essential step in order to write the treatment of the family for the Flora Zambesiaca, a reference work for the vascular plant species of South-Central Africa, drained by the Zambezi (Zimbabwe, Zambia, Malawi, Mozambique, Botswana and the Zambezi Region of Namibia). The Flora Zambesiaca includes identification keys, morphological descriptions, notes on ecology, distribution and economical uses. This project greatly contributes to the knowledge of the plant diversity and conservation in the region.

Section D: Travel to and presenting at conferences

Conferences bring researchers and others together enabling them to compare notes, establish new collaborations and seek out new funding opportunities, as well as helping to maintain Kew's premier international research reputation. The awards in this section contribute towards Kew staff making presentations, spoken or in poster form, and organizing, at conferences around the world. The Trustees have provided funding for Kew staff to attend three international conferences during 2022, one in Africa, two in Asia and one in North America.

- ❖ **Dr, Ana Rita Giraldes Simões** awarded **£1,848** to attend and present at the 22nd meeting of the Association pour l’Etude Taxonomique de la Flore d’Afrique Tropicale or Association for the Taxonomic Study of the Flora of Tropical Africa (AETFAT). It will be held in Livingstone, Zambia in March 2022. The AETFAT conference takes place every three years and is widely regarded as a key event for the exchange of information on African botany. This participation will allow Ana to strength bonds with local collaborators on ongoing projects in Kenya, Ethiopia and DRC, as well as build partnerships for future work in other regions of Africa of interest to Kew, such as Guinea, Uganda and Mozambique. A presentation of the recently finished taxonomic treatment of Convolvulaceae (sweet potato family) for Flore d’Afrique Centrale will be offered, as well as half-day workshop on Convolvulaceae, which will contribute to increased awareness and enhancement of partnerships in this important plant family for the region.
- ❖ **Dr. Isabel Larridon** awarded **£1,500** to attend and present at the Botany Conference held in Alaska. The Botanical Society of America in collaboration with partner societies organise yearly scientific conferences for botanists. In 2022, the Botany conference will be held in Anchorage (Alaska) from 24-

27 July. As a member of both the Botanical Society of America and International Association for Plant Taxonomy, Isabel attends the Botany conferences every few years. She will be presenting her Cyperaceae research to the international scientific community, form and renew collaborations with other researchers and institutions, and discuss ongoing research projects with partners. She will actively participate at this conference via an oral presentation. Furthermore, the aim is to organize a Cyperaceae colloquium offering the opportunity to Cyperaceae colleagues to present their research and for Isabel to present (as a talk) the results of the targeted sequencing study of the plant family Cyperaceae which has been undertaken with the aim of producing a new classification at tribal and genus level in collaboration with the international Cyperaceae research community.

- ❖ The **Flora of Thailand Conference** will be held at the Singapore Botanic Gardens in July 2022. This conference brings together researchers and practitioners from across Australasia to discuss all aspects of conservation seed banking and seed use, building on the success of the previous Seed Science Forum. It is organised by the Australian Seed Bank Partnership (ASPB), formed of the nine seed banks in Australia. Two Kew science staff members have received awards to attend the Conference.
 - **Dr. Carmen Puglisi** awarded **£2,250** to fund her participation at the conference and a research visit to the Forest Herbarium (BKF) in Bangkok for the Flora of Thailand project. The Flora of Thailand project was initiated in 1963 as a collaboration between Thai and Danish institutions. Today, the community of scientists committed to delivering this Flora is much larger and includes Kew scientists who, over the years, have produced accounts of families and genera, and have supervised numerous Thai students. At the conference, Carmen will present updates on the taxonomy of Diospyrosin continental Southeast Asia on behalf of a team consisting of Kew students and external collaborators. This is the first-ever systematic study of the Ebenaceae at a continental scale and she will present numerous taxonomic changes as well as an appeal for targeted collections and new collaborations. At the Forest Herbarium, she will focus on the study of Microchirita (Gesneriaceae). This part of the trip aims at studying newly collected material, which includes undescribed species. The specimens will be compared with named and unnamed material held at the herbarium, and thorough descriptions will be compiled for publication of the new taxa.
 - **Dr. Anna Trias Blasi** awarded **£1,060** to part-fund her participation at the conference and a research visit to the Herbarium at the Singapore Botanic Gardens for the Flora of Singapore project. At the conference, Anna will present her latest nomenclatural papers and the final account for Thai Vitaceae. She will also strengthen her relationships with scientific partners involved in the project and scope future collaboration. Additionally, she will examine the Singaporean collections for the Vitaceae in order to collect data to write up the taxonomic account for the Flora of Singapore for the family. Spending time in the Singapore Botanic Gardens herbarium will allow her to represent Kew, and strengthen and build new relationships with colleagues there.