Garden’s plan for conservation of the world’s plants

The Royal Botanic Garden Edinburgh (RBGE) has launched a ten year vision to work with global partners for the conservation of the world’s plants.

The RBGE holds one of the world’s richest botanical collections in its four gardens across Scotland, including its flagship in the capital.

With more than 40% of the world’s plants thought to be in danger of extinction, the new “Living Collection Policy” details practical solutions for managing botanical collections, written “with collaboration in mind”.

A key player in a global network of botanic gardens united in their determination to mitigate the twin challenges of the biodiversity crisis and climate emergency, RBGE is active in around 50 countries worldwide, working in partnership with local agencies and individuals.

Its vision is to help create “a positive future for plants, people and the planet”.

Launching the “conservation roadmap” in Edinburgh, experts said the opportunity to save fragile habitats was looking brighter.

Andy Ensoll plant health inspection

Simon Milne, Regius Keeper of the RBGE, highlighted the benefits of transcending political boundaries and collaborating globally.

He said: “It is estimated that there are 3000 botanic gardens worldwide, each offering a unique contribution at the international, national, or community level.

“This institute stands as one of the oldest and we are very proud of our expertise and leadership in plant science, conservation horticulture educational programmes and public engagement.

“There are countless opportunities for us to further develop collaborations, bringing together skills, passion, and expertise, to tackle one of the most urgent challenges of our time – the rapid decline of plant and fungal diversity, upon which all known life on Earth depends.”

Botanic gardens play a vital role in conservation by

safeguarding species and working with partners around the world to restore and reverse the decline of in-situ plants in their natural habitats.

Raoul Curtis-Machin, RBGE's Director of Horticulture and Visitor Experience, said there was an urgent need for transferable guidelines.

He said: "While we continue to scientifically describe new species, there is still a lot to learn about the plants we already know. Worldwide we need to accelerate and scale-up the work to fight species loss.

"Factors such as pests and pathogens and extreme weather events are challenging us to look after our trees and shrubs in new ways.

"We need to learn efficient methods of intervention to benefit the plants and people being impacted by climate change.

"None of this can be done in isolation and updating our Living Collection Policy equips us and others around the world to step up to the plate to meet the biodiversity crisis head-on."

RBGE, whose stated mission is "to explore, conserve and explain the world of plants for a better future", holds 13,521 different species from 152 countries in its living collection.

The five pillars of the policy – compliance, curation, cultivation, conservation, and communication – are accompanied by practical graphic appendices. These set out key regulatory and naming protocols to ensure that work done meets international regulations on the collection and cultivation of plant material for scientific research purposes and the benefit of humanity.

Guidance is also provided on the communication and education required to engage and excite future generations to create a sustainable world.

The plan comes just weeks after a research paper led by Cambridge University Botanic Garden revealed the quality of living collections around the world is gradually deteriorating, but also cited work emitting from RBGE as bucking trends in conservation partnerships.

Mr Milne added: “Each botanic garden has its own unique contribution – from our leadership in genomics and taxonomy, to Karoo Desert’s conservation work, Singapore’s orchid expertise and Tromsø’s alpine specialisations. Even smaller community gardens, such as one in the Sundarbans in the Ganges delta, play a crucial role in supporting health and ecology while preserving valuable knowledge.

“This diversity speaks to one fundamental truth: while major institutions often lead in plant science, conservation and education, we must recognise the collective power of the entire network and ensure we all share knowledge and resources for the greater good.

“This policy is a tool for collaboration, providing a framework to care for living collections worldwide.”