

# Seed money sows hope for plant

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Dr Taoufik Saleh Ksiksi at his UAE University laboratory holds cuttings from qafas plants found at the foot of Jebel Hafeet. He hopes to start a nursery in two years' time, pending further grant funding. Galen Clarke / The National

AL AIN // With its sparse foliage with no sign of budding flowers and planted in a plastic pot, it looks like a shrub which might be overlooked if on display in a garden centre.

Appearances, however, can be deceptive.

This shrub, "qafas", one of the common names for the perennial mountain shrub *Acridocarpus orientalis* A. Juss, is one of the rarest in the UAE, found in only one place in the Emirates, On Jebel Hafeet mountain in Al Ain.

If Dr Taoufik Saleh Ksiksi has his way, however, this won't be for long. The Tunisian scientist is on a mission to cultivate the plant so that, one day, it will grow across the country.

Now his ambition is on the verge of being realised.

The associate professor of plant ecology at UAE University has become the first scientist based in the country to receive funding from the Mohammed bin Zayed Species Conservation Fund.

The €25 million (Dh135m) initiative was launched last year to support worldwide conservation. More than US\$1m (Dh3.6m) worth of grants have already been awarded to applicants in Africa, Asia and South America.

Scientists from the Arab region have been slow to apply. But Dr Ksiksi, who was tipped off about the fund by a colleague at the Al Ain-based university, saw it as a perfect opportunity to get a year-long research project off the ground.

Dr Ksiksi's grant of \$10,500 will be spent on

fieldwork in which he will seek to understand more about qafas – sometimes known as ethout – and its relationship with other organisms, and eventually establish a small nursery.

It will be no easy undertaking, considering that, so far, Dr Ksiksi has found only eight such plants within a remote area of the Al Ain mountain range, which is currently out of bounds to the public.

“I am really grateful for the opportunity to do this kind of targeted research,” he said of the endowment, which, as its name suggests, is an initiative of Sheikh Mohammed bin Zayed, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces.

Qafas is recorded by herbalists as having a number of medicinal uses, while books mention areas where it is known to grow. But little is known about the plant’s habitat preferences, its growth pattern or its role within the larger ecosystem.

“It is a challenge to look into it,” said Dr Ksiksi, who did research in the United States, Australia and Japan before moving to the UAE. “No one has done any work on it. There is no literature about this species.”

He came across some references to qafas in books published 20 years ago, when he was updating himself on the local plants.

His curiosity was sparked by the fact that there was such little detail about the shrub, except for the fact that in the UAE it is known to occur in only one place.

What scientists do know about qafas is that it prefers to live on the edges of wadis in mountainous areas, forming what experts call “islands of fertility” – a concentration of nutrients around it. It is known to reach three metres in height.

It usually flowers between March and May but, if conditions are right, its yellowish blooms can also be

observed in autumn.

The plant's fruit has little wing-like structures that make it more easily dispersed through the air.

Once qafas seeds have been ground to powder, they can be used to provide relief for headaches and joint pains. The plant's young growth has reddish hair, which is used to treat inflammation in livestock.

"The first focus is to survey the areas where we have found individuals so far," said Dr Ksiksi.

Each of the eight plants discovered will be fenced off to avoid disturbance. Dr Ksiksi, helped by some of his students, has taken cuttings for study and will look to find out more about its soil requirements, growth patterns and seed germination.

They will also collect seeds, a process which Dr Ksiksi said was difficult as "the seed productivity is relatively low, on top of the rarity of the plant itself". Collecting the seeds and studying them will enable Dr Ksiksi to identify the best method of growing the qafas and, provided there is further support for his research, establish a small nursery in two years' time.

Sceptics might question the need to spend time and money on a little-known desert shrub, but without more scientific knowledge the future for qafas is uncertain. Landscapes in the UAE are changing fast because of development, and the lack of data makes it harder for conservationists to argue the cases of animal and plant species.

This is especially true of qafas. Dr Ksiksi will attempt to identify other areas where the plant grows but he is not optimistic about finding it elsewhere. By protecting the qafas, he hopes to benefit a host of organisms living alongside it, from insects and birds to tiny soil microbes.

"This chance is really a key opportunity," said Dr Ksiksi.