

Nomination of Helen Richards for the R.D. Fitzgerald Trophy

By the Australasian Native Orchid Society (Victorian Group) Inc.

Helen Richards' dedication and unerring quest for improved knowledge on the propagation and cultivation of Australian terrestrial orchids is the reason for this nomination. The R.D. Fitzgerald Trophy is another initiative of the Ira Butler Trophy Committee to recognise outstanding service to the advancement, propagation and conservation of Australian native orchid species. We support the nomination with the following listed, more or less, in chronological order, not necessarily in order of importance.

First Steps – ANOS Victoria Group

With a lifelong interest in native plants, and native orchids in particular, Helen Richards joined ANOS Victorian Group in 1974. At her very first meeting a request was made for a librarian. Typical of Helen, she put up her hand and too on the task. She was the Victorian Group's Librarian for one year. In 1975, Helen was elected to the ANOS Victorian Group Committee, serving for a total of 17 years. During that time she was Editor of the Bulletin for four years, Show Convenor for two years, Vice President for five years and President for three years. (Incredibly, in the history of the ANOS Victorian Group, Helen has been our only female President.) She has also been ANOS Parent Body Liaison Officer, travelling to Sydney to represent Victoria at ANOS Annual Meetings and Advisory Committee Meetings. Her time at the helm proved Helen is an exceptional administrator with a clear mind and adept at resolving difficulties and problems. Her skill at managing people (volunteers) and inviting active participation from reluctant people is legendary. Successive committees have felt the benefits of her earlier participation. Helen is still working in the background and was a member of the 4th ANOS Conference Planning Team. Helen is currently a member of several other ANOS Groups.

The Bulletin

After resigning as Editor of the Bulletin (ANOS Victorian Group newsletter), a position she held for four years, Helen continued to play an active role on the Bulletin Production Team. She has proof read almost every newsletter (for two subsequent editors) for over 20 years. Her knowledge of taxonomy, her ability to detect spelling, grammar and/or typing errors, her diplomacy and down-to-earth common sense have been invaluable aids to her successors and reflect the pride taken in this newsletter. Should Helen not know the answer to a technical problem, she will invariably refer to her extensive library, undertake research, or telephone appropriate scientists until she finds an acceptable answer. When she sees the need, or when a special issue arises, Helen will write an article for inclusion in the Bulletin. Her essays are written in terms that every member can understand and are aimed at educating and encouraging less experienced growers and, where appropriate, stressing the need for conservation. As the winner of over 50 ANOS Victorian Group Cultural Certificates, Helen has provided numerous, beautifully written, sets of cultivation notes for the newsletter.

Cultivation of Australian Native Orchids

Few people would know of the enormous effort Helen put into co-authoring and editing ANOS Victorian Group Publications. *Cultivation of Australian Native Orchids*, first edition, was written at a time when growing Australian native terrestrial orchids was in its infancy and the information contained therein made a huge difference to the popularity of the hobby and to the conservation of native orchids generally. The second edition made another giant leap forward with 96 pages of text, drawings, photographs and diagrams designed to assist growers of Australian native orchids.

Publications

Helen has also written articles for inclusion in magazines and periodicals including: the *Australian Orchid Review*, *Gardening News* and *the Orchid Review* (English). "Where I have endeavoured to enlighten people in the pleasures and importance of the cultivation of Australian terrestrial orchids, with an emphasis, where appropriate, in conservation." (Helen Richards pers. comm.) she has written cultivation notes of *Diurideae* for Volume 2 of *Genera Orchidacearum* (in press).

Tuber Banks and Distribution of Terrestrial Orchid Seeds

An enthusiastic supporter of the Society's Tuber bank (established in 1970), Helen regularly donates large quantities of tubers for distribution amongst other growers. On numerous occasions, she has presented a novice grower with a pot or two of terrestrial orchids to encourage this newly discovered interest. Experienced terrestrial growers have also benefited from her generosity for Helen has often given a pot of rare, endangered or difficult to grow species to another grower, her philosophy being that all known plants of a particular species should not be held in an individual collection, but should be spread amongst competent growers in case one person 'has a disaster'. Helen also supports ANOS Geelong Group and N.O.S.S.A. Tuber Banks.

Experimentation

One has only to talk to Helen to realise she has an enquiring mind, and is a genuine naturalist with keen observation and intelligent comprehension. She rarely accepts hard and fast rules at face value, but always wants to know "why". On many occasions, when someone has told her she must do something such and such a way, she has conducted experiments on plants in her own collection in order to find a better method. In many instances she has succeeded, and has generously passed on her findings to other growers, either by word of mouth or through the Society's newsletter. One example is the planting of terrestrial tubers. Growers are told to pot tubers, "shoot side up". Helen wondered what would happen if a grower made a mistake and planted the tubers "shoot down". A common, easy-to-grow species of *Pterostylis* was used for the experiment and Helen carefully recorded the number of tubers planted into the pot. Eventually the orchids' leaves emerged, at which stage she tipped out the contents of the pot, discovering that all but one plant had found its way to the surface, the emerging shoots growing downwards, before making a "U" turn and growing upwards in the normal way.

Helen has also experimented in propagating terrestrial orchids by artificial stimulation. Circa 1980, Mr Les Nesbitt, a noted terrestrial orchid grower from Adelaide, wrote to Helen explaining a new method of orchid propagation, namely "tuber removal". Since being told of the method, Helen has attempted tuber removal on many species. Over the years, she has determined which species in her collection will most readily develop a second new tuber (after the first replacement tuber has been removed from the parent plant). She has discovered that the tuber removal method is successful on *Pterostylis*, *Thelymitra*, *Diuris* and *Eriochilus*, but is not suitable for *Caladenia* or *Glossodia*, species that have a fibrous sheath surrounding their tubers. She has also experimented with the timing of tuber removal to determine at what stage in its development the "removed" tuber has the best chance of development; and when the parent plant has the greatest chance of producing a second replacement tuber. The tuber removal method is an important way of gradually increasing numbers of solitary species (no-colony forming species that replace their old tuber with one new tuber) in cultivation. A lot of plants can be propagated by cuttings, why not orchids? Helen has experimented with the "tops" of orchids (orchids that have, for various reasons, lost their tubers) to learn from which parts of a plant can be stimulated to grow.

Education

No other member of ANOS Victorian Group has done more to educate others about terrestrial orchids. At meetings and at society shows she has often given prearranged terrestrial orchid potting demonstrations. On many other occasions, a question from someone will lead to an impromptu demonstration. Helen has patiently shown others how to "tuber remove", a method

of terrestrial orchid propagation usually attempted only by experienced and confident growers. Helen has frequently invited other growers to visit her private collection, not with the sole intention of showing them a shadehouse full of pretty flowers, but to give practical advice and demonstrations on the care and propagation of terrestrial orchids. New Members Group, Terrestrial Study Group and even Epiphytic Study Group members have enjoyed and benefited from educational sessions at Helen's home. For example, when the New Members Group arranges a visit, Helen will often give a "hands on" lesson on different aspects of terrestrial orchid culture. Members of a group may be show the best method of watering terrestrial orchids and receive an explanation as to why a particular type of hose-rose works best. On another occasion her lesson may include the importance of light and, as part of the educational process, she will produce a pot (usually of a common species) that she has deliberately placed in the wrong position in order to show what happens when a particular species' preferred light level is incorrect. Several years ago, she initiated an "Annual Potting Day" at her home (in Croydon) with the purpose of showing new growers the basics of terrestrial orchid cultivation. At Society shows and displays. Helen enjoys talking to members of the public, she is a born teacher with a gift for imparting knowledge in crisp, descriptive phrases and will spend hours telling visitors about native orchids, pitching her "lesson" to each individual's level of understanding. We are sure that many new recruits made the decision to join our Society because of Helen's genuinely friendly manner, her skill in promoting native orchids, and because of her obvious enthusiasm. Her intelligent, clear-thinking approach to items under discussion is always refreshing and valuable, and her ability to articulate her point of view is impressive and persuasive. Her concern for conservation issues and the importance of habitat preservation is always apparent. We have no doubts that the sustained interest in terrestrial orchids and the high degree of skill shown in their cultivation by members of ANOS Victorian Group is in no small way due to Helen's vigorous and long-standing enthusiasm.

Encouragement

Members of all levels of expertise are drawn towards Helen. She is a very "giving" type of person. She "gives" advice and "gives" encouragement. She expertly encourages people to follow their own particular areas of interest within the native orchid community. Malcolm Thomas, who is now one of the Victorian Group's most successful growers of terrestrial orchids, writes: "As a new and somewhat knowledge-less terrestrial orchid enthusiast, Helen took me under her wing, firstly with advice and encouragement and later in supplying plant material to keep up my interest in this new found pastime. Since then, the growing of Australian terrestrial orchids has become my consuming interest, which has carried over into my retirement years. I have no doubt that without Helen's encouragement; my flash-in-the-pan interest in 1980 would never have developed in the way it has done. I am but one of many enthusiasts whom Helen has helped over the years and my best description of her involvement is to say she is an encourager, motivator, an incredibly positive person and sometimes a prompter of people to get them involved in various aspects of Australian Orchids."

Cultivation

Helen's own (extensive) terrestrial orchid collection is proof of her skill and dedication and she has been awarded many Cultural Certificates for her beautifully cultivated plants. (ANOS Victorian Group is a non-competitive society, but awards for excellent cultivation may be made at monthly meetings and are awarded at the annual Spring Show.) Since the inception of the Cultivation Certificate awards circa 1974, Helen has received over 50 Cultural Certificates. (This total includes the Phil Mims Prize for Best Cultivated Terrestrial at a Spring Show, which Helen has won on quite a few occasions.) She has twice won Best Cultivated Hybrid, an award that can be given to an epiphyte or terrestrial, with a pot of *Thelymitra* Kay Nesbitt, named after her late friend and probably the only man made hybrid in Helen's terrestrial collection.

Conservation

The "custodian" of a large collection of legally collected Australian native terrestrial orchid species, Helen is dedicated to the preservation and conservation of orchids in the wild. She has

been a mentor and guiding force in bringing more people to a deeper appreciation of the conservation values and joy of native orchids. She is in the vanguard of stalwarts who give unselfishly for the betterment of orchids and the orchid appreciation community, often supporting and encouraging others in campaigns to have known orchid areas preserved (e.g. Great Ocean Road/O'Donoghues Land Appeal, Ballarto Road extension Botanic Gardens Cranbourne, *Diuris* sp. aff. *lanceolata* at Altona and, recently, an undescribed *Caladenia* at Kilsyth). Every now and then, when a local orchid is under threat, Helen is often asked by concerned people "What should I do? Who should I contact?". On several occasions she has arranged rescue digs on land (in the Eltham area in particular) that was being subdivided. Typically, when she and her husband were searching for a farm on which to retire, Helen said "there must be orchids on the property". Eventually, they purchased a farm at Yarra Glen and the Richards have told many friends that a substantial orchid-rich area will be left in its natural state.

Speaking Engagements

Helen has occasionally been invited to present an item of the evening at one of the ANOS Victorian Group's monthly meetings. As well as being educational, her talks are always meticulously researched and beautifully presented. Her obvious enthusiasm for her subject is inspiring and her themes always lead to aspects of cultivation and conservation which are her true goals in this passion she has for orchids. Helen has also given talks at numerous generalist orchid clubs, S.G.A.P. Groups and garden clubs throughout the Melbourne Metropolitan area and country Victoria, many of which could be titled "An Introduction to Growing Australian Native Terrestrial Orchids". Helen has also spoken at interstate orchid clubs and has presented papers at a number of orchid conferences.

Life Membership –ANOS Victorian Group

At the Society's 21 st Birthday celebrations in 1989, Helen was awarded Life Membership of ANOS Victorian Group for her enormous contribution to the Society. She is currently to member who has regularly attended our meeting for the longest period.

ANOS Geelong Group

During the time that Helen was President of the ANOS Victorian Group, she initiated the idea of forming a Group in Geelong and enthusiastically followed this idea to its successful conclusion. On Tuesday the 9 th June 1987, Helen chaired the inaugural meeting of ANOS Geelong Group, when it was formally approved and office bearers elected. Since formation, Helen has supported the Group each year with a supply of tubers, in this way encouraging members to become growers of terrestrial orchids, and has been the speaker at several meetings, explaining the best way to achieve results in the growing of these orchids.

Australian Orchid Foundation

Helen Richards was invited to become an associate Director of the Australian Orchid Foundation circa 1987 and has been a Director of the AOF since 1991. Eric Wilde, Director of the Australian Orchid Foundation writes: "Helen is an important member of the AOF team. She acts/interacts on behalf of the plants, their habitats, private growers and as a general representative of ANOS." Always thinking of ways to promote the AOF and raise money for orchid research, Helen supplies at least two pots of terrestrial orchids for the ANOS Victorian Group's special effort. The cost of the orchids is accumulated and, at the end of each year, funds forwarded to the AOF.

Royal Melbourne Zoological Gardens

John Arnott, Head of Horticulture at Royal Melbourne Zoological Gardens writes: "Helen Richards introduced terrestrial orchids to Melbourne Zoo horticulture. Her initial support was through donations of plant material to be introduced into the Endangered Grasslands display.

Helen, however, provided much more than plant material, she provided guidance, technical support and a level of enthusiasm that was contagious. Helen has been an avid supporter of the *Diuris fragrantissima* program at Melbourne Zoo and has distributed plant stocks amongst the ANOS network of terrestrial specialists."

Royal Botanic Gardens, Melbourne

During 1993, the *Caladenia rosella* Project at the Herbarium, Royal Botanic Gardens Melbourne, received funds from the Australian Orchid Foundation, ANOS Victorian Group and S.G.A.P Maroondah Group. The aim of the program was to re-introduce seedlings of *C. rosella* into the wild in order to supplement greatly depleted populations, establish monitoring programs for a number of rare and threatened species; collection and isolation of mycorrhizal fungi and develop methods for symbiotic and asymbiotic germination. Supervised by Mr. Rob Cross, Andrew Batty was the original employee for the project. Mr. Cross writes: "Helen Richards' enthusiasm is one of her most striking characteristics, and her love for Australian orchids reflects this. Helen was an important contributor to and motivator for the Royal Botanic Gardens Melbourne's new Integrated Conservation Program in the early 1990's. The Program was set up primarily for the conservation of threatened Australian terrestrial orchids, and it was designed to complement the *in situ* conservation management of the orchids by the Victorian Department of Conservation and Natural Resources (DCNR).

Helen assisted the Royal Botanic Gardens program in a number of ways. She was always available to share her considerable knowledge, and she readily facilitated contacts with others in the orchid community including Kingsley Dixon and Mark Clements. Helen assisted the Royal Botanic Gardens to source funding necessary for the purchase of equipment for the new laboratory, and also supplied orchid seed for the symbiotic germination trials being developed at the Gardens. Helen deflasked some of the plantlets produced by the Integrated Conservation Program, and keenly followed the progress of the Program. Helen also contributed to the conservation of terrestrial orchids through a series of integrated conservation meetings held at the Royal Botanic Gardens, which also included representatives from the Royal Botanic Gardens, DCNR and Latrobe University. Helen maintains contact with the terrestrial orchid research work at the Gardens, and orchid conservation in general. She is a member of the Native Orchid Growers Network, a group promoting the exchange of information about the propagation and cultivation of orchids. The Network includes individual growers, the Royal Melbourne Zoological Gardens, Alcoa, Royal Botanic Gardens and the Department of Natural Resources and Environment."

Assistance To Professionals

Helen is without exception the acknowledged expert in growing and cultivation our terrestrial orchids and in identifying them. She is also able to translate this knowledge to the particular audience whether a botanist or an amateur grower. It is when working with professionals that her overriding interest in Australian native terrestrial orchids is given full reign. Helen and Barry Richards were honoured when, in recognition of their assistance in his research, David Jones named an orchid after them – *Caladenia richardsiorum*.

Dr. Colin Bower

"Helen is not only one of the best growers of our native terrestrial orchids, her collection is fully and carefully documented as to the origins of each accession. This combination of 'green fingers' and fastidious data recording makes Helen's collection one of great scientific importance. For these reasons, I have been able to use flowers from Helen's collection for my pollinator studies and have great confidence that they come from the particular populations and localities I am seeking. Having access to such a collection has been of great assistance to my studies. Helen is able to post flowers to me, thereby saving me from travelling hundreds of kilometres to collect field material. In the case of some rare forms, Helen's collection is the only readily available source of material for field testing for pollinators."

Dr. Mark A Clements

"Since the early 1970's Helen has approached the problem of the cultivation of orchids in a systematic manner, experimenting and developing methods and mixes for that purpose. She now has extensive knowledge of the methods for the propagation of the majority of Australian native terrestrial orchids, and grows and has had many of them growing superbly for many years. Her contribution in this field cannot be overstated. She literally has taken the mystique out of growing native terrestrial orchids and made it a repeatable process. Additionally she has willingly imparted this knowledge to others.

At the national level, Helen has made a major contribution to the Centre for Plant Biodiversity Research, Orchid Research Group's study of the systematic of the Australian Orchidaceae. As a person who can reliably cultivate many temperate Australian terrestrial orchids, her contribution has proved invaluable because she has sent material of many species from throughout Australia, cultivating them successfully to flower. Material, sent to Canberra from these collections, all of known origin have been essential in assisting with determination of the status of many species. The reliability of her record keeping, and maintenance of the integrity of collections, makes her contribution all the more valuable. Additionally, the successful cultivation of many of these collections has meant excess tubers have been distributed to Society members thus enhancing the chances of survival in cultivation of particular species. It also reduces the desire for the re-collection of many species, especially when a number of them are rare. Helen's contribution to conservation has been outstanding through her efforts to propagate species, through the dissemination of excess tubers through the Society tuber bank, through collection of seed from rare plants and encouragement of others (both myself and people like Andrew Paget) for the *in vitro* propagation of these plants. She has been involved in attempts at the conservation and propagation of several rare and endangered orchids such as *Diuris fragrantissima*, especially in Victoria."

Mr. David L Jones

"Helen assisted my research by cultivating orchids on my behalf and sending on living material as it becomes available. This contribution should not be underestimated and needs some elaboration. Firstly her collection is of major importance because the provenance details are faithfully recorded and we are sure of the localities of the material she provides. Secondly the material is healthy and well grown and she is very generous in giving me first call, sometimes even before orchid shows. The material that is passed onto Helen by me often originates as sterile plants which I have collected from some out-of-the-way or really remote locality that I have little hope of returning to check on later flowering. By cultivating these plants Helen (in most cases) is able to provide answers that are not otherwise available. Sometimes these turn out to be new species, in other cases they prove to be valuable extensions of range or add details of variation not previously observed. Her persistence and cultivation skill is exemplified by a *Chiloglottis*, which I collected in Queensland in 1987 and she finally flowered some seven years later. Plants also come to me via external collaborators and these frequently sent to Helen for the same reasons given above. With these she has achieved some remarkable successes from material, which can best be described as fragmentary (that is a leaf with some underground bits but not tubers). From such material I was able to solve a problem in a South Australian *Corybas diemenicus*. Her success with the cultivation and flowering of *Corybas* is quite special.

Helen's general collection is also regularly plundered by others and me for various purposes. For example as a source of fresh material for examination under the Scanning Electron Microscope; as a source of pollen for the pollen research program; as a source of flowers for pollination studies; and more recently as a source of DNA. Helen has made special field collection of many taxa to assist in my research, including the type specimens of *Corybas incurvus* and *Dipodium roseum*. Helen has very strong conservation ethics and firmly believes that cultivation programs can assist with the conservation of rare or threatened species. She has hand-pollinated her plants of such rare species as *Caladenia calcicol*, *C. hastata*, *Diuris fragrantissima*, *D. diposita* and *D. flavescens* and provided the seed for germination studies.

Mr. Andrew Paget

"I was involved with Helen in running the Seed and Protocorm Bank for the Australian Orchid Foundation. During the time I have known her she has always made time to support endeavours to conserve, propagate, and disseminate information and knowledge about our native ground orchids. Helen has been a keen supporter of the propagation work that I have undertaken to master the flasking of terrestrial orchids, and has been a supplier of seed for my flasking program.

In Conclusion

Helen Richards is a very special lady who has devoted much of her life to improving the knowledge on the propagation and cultivation of Australian native orchids. She stringently adheres to the principle of promoting the conservation and through preservation of their natural habitat.