



Flowering Times of Tasmanian Orchids: A Practical Guide for Field Botanists



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4th Edition, July 2018

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A Practical Guide for Field Botanists***

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MARK WAPSTRA

FOREWORD TO FIRST EDITION (2008)

This document fills a significant gap in the Tasmanian orchid literature. Given the inherent difficulties in locating and surveying orchids in their natural habitat, an accurate guide to their flowering times will be an invaluable tool to field botanists, consultants and orchid enthusiasts alike. *Flowering Times of Tasmanian Orchids: A Practical Guide for Field Botanists* has been developed by Tasmania's leading orchid experts, drawing collectively on many decades of field experience. The result is the most comprehensive State reference on orchid flowering available.

By virtue of its ease of use, accessibility and identification of accurate windows for locating our often-cryptic orchids, it will actually assist in conservation by enabling land managers and consultants to more easily comply with the survey requirements of a range of land-use planning processes. The use of this guide will enhance efforts to locate new populations and increase our understanding of the distribution of orchid species. The Threatened Species Section commends this guide and strongly recommends its use as a reference whenever surveys for orchids are undertaken.

Matthew Larcombe

Project Officer (*Threatened Orchid and Euphrasia*)

Threatened Species Section, Department of Primary Industries, Parks, Water & Environment

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DOCUMENT AVAILABILITY

This document is freely available as a PDF file downloadable from the following websites: www.fpa.tas.gov.au; www.dpipwe.tas.gov.au; www.ecotas.com.au. Please check for the latest version.

It may also be requested directly from the author (see contact details below).

The author is aware that the PDF file prints to different qualities on different printers. I suggest printing a test page from a section of the document that shows all hatching and shading types. If you can't distinguish hatching and shading types when printing from the PDF file please contact the author for the Microsoft Word version.

FEEDBACK

The author welcomes comments and additional information that may inform future versions of this document. Contact details are as follows:

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SUGGESTED CITATION

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COVER ILLUSTRATIONS

Spring (*Pterostylis ziegeleri*); summer (*Pterostylis commutata*); autumn (*Pterostylis parviflora*); winter (*Pterostylis grandiflora*) – © Mark Wapstra.

BACKGROUND

Tasmania has over 214 species of native orchids (and one naturalised species). Many of these are listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. Other species are not listed as threatened but can be of regional significance because of their distribution (e.g. scarce in one part of the State but common elsewhere).

Almost any land use activity may have an effect on orchid species: some may be beneficial while others may be detrimental. The threatened status of many species places legal and policy requirements on landowners, land managers, developers and State and Commonwealth agencies. Recommendations are often made to undertake surveys for certain species to ensure that the proposed activity does not cause harm to a particular population.

There are hardly any constraints on the timing of a survey for perennial plants that can be identified at any time of the year, whether there is fertile material present or not. For example, a survey can be undertaken at any time of the year for *Spyridium vexilliferum* because this low shrub is so distinctive as to be easily detected and its identification does not rely on flowers or fruit. Some other species are trickier because flowering or fruiting material aids in their detection or identification although it may not be critical. For example, a survey for threatened *Epacris* species is certainly easier when they are in full flower in spring-summer although plants can be detected at any time, albeit perhaps somewhat dependent on the skill of the observer.

Although orchids are technically perennial, in that most have tubers from which new growth arises every season, effectively they are best described as ephemeral “annuals”. Although their leaves usually emerge many months before flowering, these are often hard to detect among other vegetation, and they are usually difficult to identify to species level. Many orchids flower over a short period, usually in the order of weeks. Some individual plants may only flower for a week, some only one or two days. Some species only emerge and flower after certain disturbance events, notably fire. This combination of factors means that it is not a simple matter to survey for orchids.

PURPOSE OF THIS DOCUMENT

This document has been prepared to assist administrators (e.g. those in government agencies that recommend surveys for certain species), landowners, land managers, property developers, forest managers (e.g. those that are told they need to have a survey undertaken) and field botanists (e.g. those actually doing the surveys) in making rational decisions regarding the timing of surveys for orchids. It may also be a handy reference for orchid enthusiasts, photographers and botanists who wish to see what is likely to be flowering at any given time during the year.

The flowering times in this document should be taken as a guide only because there are always exceptions to the rules. However, it has drawn on as much published information and expert knowledge as possible.

The main impetus for this document is that current published information is insufficient to allow those unfamiliar with our orchids to make pragmatic decisions regarding the timing of surveys for threatened species. The definitive guide book for Tasmanian orchids, *The Orchids of Tasmania* (Jones et al. 1999) notes flowering times for all species and at first glance this would seem to provide a good indication for decision makers. But two examples show why this book should be regarded as general only in its information. The flowering time for *Pterostylis grandiflora* is described as April to August, which suggests a wide survey window of five months, nearly half the year. The reality is that while there are database records or herbarium collections spanning this period, most people familiar with this species would not look for it until late June to mid-July. The flowering time of *Burnettia cuneata* is given as October and November. In this case, the period is accurate and is a good guide. However, there is no practical point in undertaking surveys for this species unless there has been significant disturbance such as a summer fire in the preceding season because it only emerges in the season after fire (occasionally a very few plants might flower the second season after fire).

This document is not an identification guide. Field botanists must ensure that they correctly identify the orchids they are searching for. The author acknowledges that this can be difficult and urges people to exercise caution and rigour in their assessments.

This document is free to all. Users are simply asked to acknowledge its use. Every effort will be made to keep the guide up-to-date with current nomenclature and taxonomy but users are urged to keep abreast of these subjects themselves.

FORMAT

Orchid taxonomy is fluid and there is an almost constant shifting of names. This will not affect the use of this guide: a name is just a name. But there is also a fairly steady stream of additions, deletions, subsumations,

and varietal and subspecific rank creation going on. This sort of taxonomic activity may affect the use of this guide because if a taxon is split, the resulting taxa may have different flowering times.

This guide is presented in a table ordered alphabetically by genus and then species, based on the latest *A Census of the Vascular Plants of Tasmania, including Macquarie Island* (de Salas & Baker 2017) produced annually by the Tasmanian Herbarium. That document includes a relatively lengthy synonymy for most species such that it matters little whether one accepts the numerous genera within *Pterostylis*, *Caladenia*, *Corybas*, *Chiloglottis* and *Microtis* advocated in *A Complete Guide to Native Orchids of Australia including the Island Territories* (Jones 2006), as long as you know the most recent name used in the *Census*. This does mean, however, that some of the most recent taxonomy (e.g. *Paracaleana* moving back into *Caleana*; *Microtidium* and *Hydrorchis* moving back into *Microtis*) recognised by some authorities is not yet accepted herein.

This guide contains all species, not just threatened species, even though the latter group may be the focus of surveys for various reasons. However, it was thought useful to include non-threatened species because sometimes the process of elimination may assist in the identification of a species, threatened or otherwise.

HOW TO USE THIS DOCUMENT

Deciding on whether a survey is warranted for a particular species, and if a survey is warranted, when this should occur, is complex. The following steps are recommended.

1. If the reason for the survey is because of a database record, check its veracity and precision. Be wary of imprecise records and watch carefully for poor precision caused by data translation errors. It may be worthwhile checking with the original collector (if possible) because often records “belonging” to orchid enthusiasts are accompanied by detailed notes on their exact location and a lack of precision in a database does not always translate to a lack of precision on the ground.
2. Check the date of collection carefully because many databases can be misleading to the unwary user. For many older records, the date of collection is often only recorded as a month or a year – in these cases some databases automatically superimpose a 1st of the month or 1st of the 1st month of the year. Hence, records with 1 or 1/1 in the date should be treated with caution, as should records that are well outside the expected flowering period (e.g. a winter record for a summer-flowering species).
3. Check the habitat information in sources such as *The Orchids of Tasmania* (note that information in listing statements and information sheets may be a distillation of other sources but can be more up-date). It is not sufficient to require a survey for a species just because there is a nearby record – there must be potential habitat. Some habitat descriptions are quite broad and advice from an orchid specialist can often narrow the survey requirements.
4. Check the ecological information in this document and in *The Orchids of Tasmania* to ensure that a survey, if warranted on habitat grounds and database information, is still useful on ecological grounds. For example, there may be little practical point in undertaking a survey for a species that effectively only emerges after a high intensity summer fire.
5. Be aware that orchids differ from most other flowering plants in that they do not respond to the immediate seasonal conditions such as recent rain. The emergence of spring- and summer-flowering orchids is triggered by autumn and winter rains. In prolonged droughts they may not appear at all, or if leaves do appear they may wither before flowering or the young flower spike may abort. Thus, the failure of finding orchids in drought years does not necessarily mean that they are absent.
6. To determine the best time for a survey, find the target species in the table and check its flowering time, and the notes (e.g. some species flower later in highland habitats, earlier in lowland habitats).
7. Be alert that other significant species may be present at the time of the survey, even though there may not be any records from the vicinity.

REFERENCES

- de Salas, M.F. & Baker, M.L. (2017). *A Census of the Vascular Plants of Tasmania, including Macquarie Island*. Tasmanian Herbarium, Tasmanian Museum & Art Gallery, Hobart. [downloadable free from: www.tmag.tas.gov.au]
- Jones, D.L. (2006). *A Complete Guide to Native Orchids of Australia including the Island Territories*. Reed New Holland, Sydney.
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SPECIES-BY-SPECIES GUIDE TO FLOWERING TIMES

The flowering period of most species is taken from *The Orchids of Tasmania* (Jones *et al.* 1999), indicated as light grey shading. It is noted that *The Orchids of Tasmania* (Jones *et al.* 1999) often indicates a longer flowering period for several non-endemic species than typically observed in Tasmanian populations because knowledge from mainland populations was included in that publication. This discrepancy is displayed by using dark grey shading to indicate the observed peak flowering period in Tasmania, and hatching to indicate mainland-based information. This additional information is from several sources including more detailed published information (such as various species' protologues and more detailed species' accounts), personal knowledge of the author (sourced from many decades of orchid surveys and photography), information from Tasmanian Herbarium specimens, database information and other sources, and information sourced from orchid books covering mainland species such as *Native Orchids of Australia including the Island Territories* (Jones 2006).

Key

	Light grey = potential flowering period (see also notes below each entry)
	Dark grey = peak flowering period (see also notes below each entry)
	Hatching = potential flowering period based on mainland Australian populations (may not be applicable to Tasmanian populations in many situations so use caution in interpretation)
*	* preceding the species name denotes a threatened species on the Tasmanian <i>Threatened Species Protection Act 1995</i> and/or the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (note that the status of species was correct at the time of publication but that users should confirm the status of any species prior to making management decisions)

Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
Acianthus The two species are quite conspicuous, although they have small and relatively short-lived flowers. Both species are detectable for many months before and after flowering by the presence of the ground-hugging leaves, often in dense colonies. The leaves can be distinguished from other leaves using the key to orchid leaves in <i>The Orchids of Tasmania</i> .																								
Acianthus caudatus	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species often forms quite massive colonies, but not all plants may produce flowers. The species has a wide flowering period but there is a definite peak in early to mid-spring (September).																								
Acianthus pusillus	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
While there is no overlap in the main flowering period of the two species, old flowers of <i>A. pusillus</i> may still be detectable during the flowering period of <i>A. caudatus</i> . However, the two species are so distinct as to make identification easy, even if the two species co-occur (which is common).																								

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Burnettia There is little point searching for this species unless there has been a fire in the preceding season because this species only emerges as a leafless flowering plant after such a fire, and then often in large numbers. In the second season after the fire an odd few may reappear, but none beyond that. The type of fire that promotes flowering varies from higher intensity summer fires through to lower intensity prescribed burning between autumn and spring.																								
Burnettia cuneata	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Individual flowers of a plant only open for a few days, but plants remain recognisable for some weeks after flowering. The peak flowering season has been extended into December, and the shoulder season into January, based on recent observations on Bruny Island. Note that this species responds strongly to high intensity summer fires in the preceding season (can form fields of 1,000s over many hectares), but is often undetectable in the absence of fire or even the second flowering season post-fire.																								
Caladenia When flowering, species of <i>Caladenia</i> are amongst the most conspicuous of Tasmania’s orchids. With an obvious peak in flowering in spring-summer, there is a substantial overlap in the flowering period of many species. Detection prior to flowering is possible because <i>Caladenia</i> leaves are distinctively hairy. However, distinguishing between species on the basis of leaves is virtually impossible (but see comments under some species such as <i>Caladenia latifolia</i> for possible exceptions). Detection of <i>Caladenia</i> species can be constrained in some species by very short flowering periods with some populations flowering for less than two weeks before withering to unidentifiable browned leaves and stalks. The flowering response of <i>Caladenia</i> to events such as fire vary from species to species but most respond positively to high intensity fires during the preceding summer. Some species, especially the small-flowered species, can be reluctant to flower freely until the ground cover is re-established, usually in the 2 nd or 3 rd flowering season. Having said this, the lack of a fire event is not necessarily a reason not to undertake a survey as many species that respond positively to fire can persist for many years in the absence of fire, albeit usually in lower numbers.																								
Caladenia alata	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The flowers of individual plants open for a few days only, and local populations usually flower over a three week period only.																								
Caladenia alpina	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species spans a wide altitudinal range, and local flowering times vary accordingly. The closely related and similar <i>C. cracens</i> is typically a lowland species that flowers earlier.																								
Caladenia angustata	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Peak flowering is variable, peaking in late September and October in some places, but late October to early November (northern regions). Where this species and the closely related and similar <i>C. gracilis</i> occur together, as they do at Fingal, <i>C. angustata</i> starts flowering about two weeks earlier and is nearly finished when <i>C. gracilis</i> begins to flower.																								

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* <i>Caladenia anthracina</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
There is a strong peak in flowering in latter half of October and through November. Drought conditions may affect flowering.																								
<i>Caladenia atrata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Peak flowering depends on the coldness of the locality.																								
<i>Caladenia atrochila</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The flowers open for only a few days before self-pollinating but finished flowers should be identifiable if dissected.																								
* <i>Caladenia aurantiaca</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The flowering period on the mainland starts earlier but the only Tasmanian collections (Deal Island) were made on 5 November 1992 and 9 October 2004. The flowers of this species last only two to four days before self-pollinating but dissection of finished flowers should enable identification.																								
* <i>Caladenia australis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Flowering period on mainland Australia is September to November. Known only from one collection in Tasmania (9 November 1968, Flinders Island). Late October to early November is likely to be a good time to search for the species here.																								
* <i>Caladenia brachyscapa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Flowering period on mainland Australia is September to November. Known only from one collection in Tasmania (Clarke Island, 7 Nov. 1979, which may be a good time to search for it.																								
* <i>Caladenia campbellii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species appears to have a relatively short flowering period around the last half of October and first half of November.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
* <i>Caladenia cardiochila</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Flowering period on mainland Australia is August to November but collected in Tasmania only once (from somewhere on Flinders Island) in October 1947.																								
<i>Caladenia carnea</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
<i>C. carnea</i> is part of a complex of closely related species involving at least <i>C. fuscata</i> in Tasmania, but possibly also <i>C. tonellii</i> . Where <i>C. carnea</i> and <i>C. fuscata</i> grow together (which is in many places), <i>C. carnea</i> usually begins flowering about two weeks after <i>C. fuscata</i> . Field workers should watch for possible hybrids and use the key warily. In recent years, flowering into December and even January has been observed, perhaps evidence of additional taxa in this highly variable species.																								
* <i>Caladenia caudata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
It appears that populations in the south of the State consistently have a peak flowering from late August to late September (although this is even variable with the population at Waverley Flora Park peaking in late August to mid-September but populations at Coningham, Ridgeway and Austins Ferry peaking in late September to mid-October), while northern populations (e.g. Henry Somerset Conservation Area) flower later (October, even early November). This species responds with prolific flowering the first season after a high intensity fire, diminishing to few or none in subsequent seasons. Fire is not required for the species to persist. Despite its size and distinctive appearance, the species can be hard to detect in its often dried-off grassy habitat.																								
<i>Caladenia clavigera</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A relatively early spider-orchid with a distinct peak in the latter half of October (lowland areas) and into first half of November (north of the State and higher elevations).																								
<i>Caladenia cleistantha</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Only recently recognised for Tasmania (reported from images of specimens from Hunter Island, first noted in the 1970s). The flowering time in Victoria and NSW is described as August to September, which is presumably the same in Tasmania.																								
* <i>Caladenia congesta</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
There is a definite peak in flowering in November (most records are from the last half of November but it is in full flower in early November in the Port Sorell area and has been seen flowering in late October) but in colder areas this species may flower into early January. This is a highly distinctive species and finished flowers may be identifiable by dissection because of the highly distinctive labellum.																								

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<i>Caladenia cracens</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This lowland species flowers from early October to mid-November, while the closely related and similar <i>C. alpina</i> is typically a species of higher elevations, and flowers later.																								
* <i>Caladenia dienema</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Initially it was thought that this species had a peak flowering in late October to early November, which appeared to be consistent, probably because of the relatively consistent west coast climate. However, more recent information indicates that flowering can commence in early September and may peak in mid to late October. There remains considerable confusion over identification of members of the <i>C. patersonii</i> species-complex and this may account for some of the confusion in flowering period of <i>C. dienema</i> .																								
<i>Caladenia dilatata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A late spider-orchid, peaking from late November into early December. Finished flowers maintain their distinct shape and colouring for up to two weeks.																								
<i>Caladenia echidnachila</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Essentially a spring-flowering species. Responds strongly to fire and other disturbance such as slashing. The difference between <i>C. echidnachila</i> (which flowers between September and early November) and <i>C. helvina</i> (which apparently flowers in summer i.e. December to January) remains confused because of populations (e.g. Murdunna, Freycinet) of one or either of these species flowering in late October to mid-November i.e. between the peak flowering times of <i>C. echidnachila</i> and <i>C. helvina</i> .																								
* <i>Caladenia filamentosa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species is identifiable before flowering from its leaves (reddish base, densely hairy and long) and from finished flowers (because of the distinctive long wispy segments persisting for some time). This species responds strongly to fire, with high numbers one to two seasons after fire, then dwindling to few or none as the undergrowth thickens.																								
<i>Caladenia fuscata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
<i>C. fuscata</i> is part of a complex of closely related species involving at least <i>C. fuscata</i> in Tasmania. Where <i>C. carnea</i> and <i>C. fuscata</i> grow together (which is in many places), <i>C. carnea</i> usually begins flowering about two weeks after <i>C. fuscata</i> . Field workers should watch for possible hybrids and use the key warily.																								

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<i>Caladenia gracilis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Peak flowering is in mid-October and November. Where this species and the closely related and similar <i>C. angustata</i> occur together, as they do at Fingal, <i>C. angustata</i> starts flowering about two weeks earlier and is nearly finished when <i>C. gracilis</i> begins to flower.																								
<i>Caladenia helvina</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species is apparently most closely related to <i>C. pallida</i> (Jones et al. 1999) but <i>C. helvina</i> is a summer species (peaking in latter half of December and into January) whereas <i>C. pallida</i> flowers in spring. Unfortunately, herbarium collections and database records indicate that the species has also been collected in spring (October and November), which may be mis-identifications of <i>C. echidnachila</i> (see also comments under that species).																								
<i>Caladenia latifolia</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Populations of this species appear to produce flowering plants over a long period, with an apparent peak in October with records from September through to early November. Plants can be identified prior to flowering from the rather lax, broadly lanceolate leaf that is very hairy on both surfaces. Mainland populations are reported from August through to December.																								
* <i>Caladenia lindleyana</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Flowering plants have been seen from mid-October to early November in the northern Midlands and mid-December in the Lilydale area, with old records from the 1800s in early January from Circular Head where they are now extinct. The taxonomic status of the species is highly uncertain.																								
<i>Caladenia mentiens</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Flowers of <i>C. mentiens</i> usually open for only one or two days before self-pollinating and in cold weather they may self-pollinate without opening.																								
* <i>Caladenia pallida</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Not much is known about this species, which appears to have been more widespread in the 1800s. The few more recent records suggest a peak flowering period spanning November.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
* <i>Caladenia patersonii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species has a long flowering period but with a distinct peak from October into November, which is probably the best detection window. This species responds strongly to high intensity summer fires with profuse flowering the season after, then quickly diminishing to low numbers in subsequent seasons. The taxonomic placement of some populations (e.g. those from the Arthur-Pieman Conservation Area) is uncertain.																								
* <i>Caladenia prolata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
In Tasmania only known from three collections (12, 14 & 25 November 1998 & 2006, Flinders Island; and 30 October and 18 November 2004, Deal Island), suggesting a good search window on Bass Strait islands could be late October to mid-November.																								
* <i>Caladenia pusilla</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The flowers of this tiny species do not always open fully before self-pollinating, and can be hard to detect in the field, but when detected, the short stiff scape and tiny buds are a give-away.																								
* <i>Caladenia saggicola</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The peak in flowering is early to mid-September to mid-October. This species responds well to disturbance (rabbits and horses) and is likely to respond strongly to fire.																								
* <i>Caladenia sylvicola</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species was not seen for many years (after a fire destroying the humus layer) but the time of flowering was well known from several precise observations and was considered as a few days either side of 1 November. At this time the local <i>C. carnea</i> has finished and <i>C. cracens</i> is just starting. In 2009, a single flower was detected at the known site on 25 October but withered a few days later.																								
* <i>Caladenia tonellii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Poorly-known so far and may extend from late October into early December, but most records are from early to late November. Finished flowers of this species are likely to be distinctive because of their stature and arrangement of flowers. This species has one of the longest leaves of the small-flowered caladenias (up to 25 cm tall, green and sparsely hairy) so detection prior to full flowering may be possible. It is part of the <i>C. carnea</i> complex and some of the smaller <i>C. tonellii</i> could be mistaken for that species (although <i>C. carnea</i> tends to flower earlier).																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Caladenia transitoria</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Although this species extends from lowland to colder higher elevations, most records are from early to late November. Detection prior to full flowering is easy because of its distinctive dull greenish cream to greenish yellow buds (no other confusing species). Similarly, recently finished flowers may also be identifiable from the colour and the highly distinctive labellum. Responds with strong flowering following a high intensity fire.																								
<i>Caladenia vulgaris</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species is part of the <i>C. carnea</i> complex and would previously have been mistaken for that species, despite its very long leaf. Although it has a long flowering period from late October to late December, possibly even into early January in cold locations, it is typically an early summer species, and where it is found the local <i>C. carnea</i> tends to have finished flowering.																								
<i>Caleana</i> This species is most easily detected when in full flower (although early buds and fertilised flowers are also unmistakable). The leaf emerges in winter and is fully developed long before flowering time. It looks like a reddish fallen gum leaf and is unmistakable.																								
<i>Caleana major</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The finished flowers of this summer-flowering orchid maintain their shape and colour for many weeks (detectable as late as March). The wide flowering period indicated for mainland States is unlikely to be applicable to Tasmania.																								
<i>Calochilus</i> Beard-orchids are easiest to identify when in full flower but can be recognised many weeks before by their distinctive three-cornered basal leaf. Recently finished flowers can still be identified by the labellum (although dissection is a little awkward because of the fleshy flowers).																								
* <i>Calochilus campestris</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Poorly-known in Tasmania, collected only once, from Clarke Island on 12 November 1979, and one other unknown site (and unknown date apart from 1800s) from mainland Tasmania, which coincides with peak flowering of the other Tasmanian beard-orchids. Only reliably separated from <i>C. herbaceus</i> on leaf characters, the status of <i>C. campestris</i> relative to <i>C. herbaceus</i> remains uncertain in Tasmania.																								

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<i>Calochilus herbaceus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
This species has a long flowering period, with a peak in November, although often found into December depending on seasonal conditions.																
<i>Calochilus imberbis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
This taxon was not included in <i>The Orchids of Tasmania</i> and is usually regarded as a self-perpetuating peloric form (with a petaloid labellum) of <i>C. platychila</i> . Flowering period above is from mainland Australia but Tasmanian collections are mostly from early to late November.																
<i>Calochilus paludosus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
Where growing together with <i>C. platychilus</i> (often) this species flowers one to two weeks later.																
<i>Calochilus platychilus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
Usually the first beard-orchid to flower. Where it grows together with <i>C. paludosus</i> , which is often the case, <i>C. platychilus</i> comes into flower one or two weeks earlier.																

Chiloglottis

Chiloglottis species usually grow in extensive, often dense, colonies recognisable for most of the year from their paired leaves (but watch for aberrant populations with many plants with one main leaf and a rudimentary second leaf). Identification to species level is possible in buds as well as finished flowers by extracting the labellum. Fertilised flowers are difficult to identify correctly because flower parts tend to become fused (although *C. cornuta* is distinctively green). Fertilised flowers elongate considerably making detection easy but identification difficult.

<i>Chiloglottis cornuta</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
This species occupies a wide elevational range, with flowering peaking in November at sea level, up to late December at high elevations.																
<i>Chiloglottis grammata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
This species is found from low to high elevations, with flowering peaking in late October and November at lower levels, well into December at higher elevations and other cold places.																

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Chiloglottis gunnii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Flowering time depends on elevation and coldness of the locality, with flowering as early as late October at low elevations and as late as January at high elevations.																								
<i>Chiloglottis reflexa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A typical autumn species, locally sometimes extending well into May. December, January, June, July and August are not shaded but the species has been recorded in full flower in these months based on images of the species at different sites in Tasmania.																								
<i>Chiloglottis</i> sp. Wielangta	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This taxon is based on specimens collected from Wielangta from early September to mid-October, although the taxon may also flower as late as early December near Lorinna in the north of the State. Further collections of this taxon are required to allow a full description and/or to determine its possible hybrid status. It may simply be part of <i>C. grammata</i> , which may need to be more broadly circumscribed.																								
* <i>Chiloglottis trapeziformis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Only known from a few sites in Tasmania with a wide range of flowering times, varying from mid-August on Flinders Island to mid-October-early November on mainland Tasmania.																								
<i>Chiloglottis triceratops</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species flowers as early as the first half of October at lower elevations and as late as late December at higher elevations and in colder places.																								
<i>Chiloglottis valida</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
In Tasmania, until recently only known from King Island (27 October 1998; 20 November 2009) but recently discovered flowering in late December and into January in the Dial Range on mainland Tasmania, indicating a potentially long flowering period.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
Corunastylis When not flowering, <i>Corunastylis</i> specimens are virtually undetectable because their single thin leaf is often hidden amongst grasses and sedges. Even in flower their short stature and colour makes them hard to detect in their surrounds. The flower stems elongate in the fruiting stage and persist for many months. They may then be more easily spotted but the dried flower parts are rarely useful for identification. Midge-orchids are often spotted in slashed roadsides, which may indicate a liking for disturbance.																								
Corunastylis archeri	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Flowering peaks in December and January but varies between sites markedly with some populations in full flower as early as November.																								
*Corunastylis brachystachya	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Flowering appears to peak in March and extend through April and even into May.																								
Corunastylis despectans	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Historical records indicate that this species may flower as early as October, while recent records suggest a peak in flowering from early January, through to late March at higher elevations.																								
* Corunastylis firthii	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The few records indicate this species flowers from mid-January to late February. It is restricted to the Freycinet Peninsula, where the closely related and similar <i>C. tasmanica</i> is also in flower then (supporting existing doubts about the taxonomic status of <i>C. firthii</i>).																								
* Corunastylis morrisii	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The flowering period of this species extends into March but most collections are from late January through to late February.																								
* Corunastylis nuda	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species extends well into higher elevations where flowering peaks in February.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
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* <i>Corunastylis nudiscapa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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The flowering period of this species is becoming increasingly well known for Tasmania. The date of the type collection (from near Hobart) has been listed as 9 February 1840 but this is now known to be an error and it is more likely that the specimens were collected on 9 October 1840. Another collection of the species from the 1850s from near Oyster Cove is also from October. The species was recently re-discovered in early April and the stage of flowering suggests that the appropriate time of year for detection is from late February through to early April. At one known site, old flowering spikes can be detected as late as August but this may not be the case at other sites and should not be relied upon. Specimens in full flower have been detected in December and easily identifiable fertilised (and possibly budding) specimens detected in late May.

<i>Corunastylis pumila</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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It appears that peak flowering may be confined to the month of February.

<i>Corunastylis tasmanica</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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This species has a long flowering period, even within a single locality. Fertilised specimens have been detected as late as early September but this level of detection should not be relied upon.

Corybas

Flowers of *Corybas* are easily overlooked even though they often tend to grow in dense colonies, usually in the shelter of other vegetation. There are three types of leaves (based on leaf colour) and this can be a rough guide to identification of species: those that are dark green above and purple below (*C. aconitiflorus*); those that are green on both surfaces (*C. diemenicus*, *C. fimbriatus*, *C. fordhamii*, *C. incurvus*); and those that are grey-green above and reddish purple below (*C. unguiculatus*). Provided the field worker can differentiate between *Corybas*, *Acianthus* and *Cyrtostylis*, this difference in leaf colouration within species of *Corybas* makes identification of vegetative, budding and fertilised specimens possible, especially when combined with habitat features. Leaves are present for most of the year.

<i>Corybas aconitiflorus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Non-flowering plants can be identified from their somewhat leathery, heart-shaped leaves that are dark green above, purplish beneath.

<i>Corybas diemenicus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Although the flowering period of this species is very long, there is a definite peak in late June and July, perhaps somewhat later at higher elevations.

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* <i>Corybas dienemus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Species restricted to Macquarie Island. Flowers naturally in late spring (November) through to early summer (December).																								
<i>Corybas fimbriatus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A species of northern Tasmania and Bass Strait islands, with a peak in flowering in June and into July.																								
* <i>Corybas fordhamii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Flowers from July to October on the mainland but in Tasmania only known from a collection from Flinders Island in September, which is probably the best time to look for it here.																								
<i>Corybas incurvus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A species with a long flowering period but with a peak around August.																								
* <i>Corybas sulcatus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Species restricted to Macquarie Island. Flowers naturally in late spring (November) through to early summer (December).																								
<i>Corybas unguiculatus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Outside the flowering period plants can be identified from their heart-shaped leaves that are grey-green above, reddish purple beneath. An unusual form south of Marrawah has leaves that are only faintly flushed red-purple beneath, more commonly wholly green – this form also has different colour varieties and 2-flowered specimens.																								

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Cryptostylis

When flowering, species of *Cryptostylis* are relatively easily spotted (except perhaps in denser sedgy habitats). This is one of the few evergreen orchid genera in Tasmania and the erect leathery leaves are distinctive although difficult to detect amongst dense vegetation.

* <i>Cryptostylis leptochila</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Within Tasmania, this species is only known from Flinders Island, with all collections from late January.

<i>Cryptostylis subulata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Detectable in bud stage as buds are large and show colour early. While there is a peak in flowering from late December through to January, the species can be detected into February, March and April at some sites.

Cyrtostylis

When flowering, species of *Cyrtostylis* are easily detected (often quite abundant). However, the genus is easily recognised during the non-flowering period by the distinctive ground-hugging leaves. Confusion with *Acianthus* is unlikely as their leaves are purplish below. Experience is needed to distinguish this genus from *Corybas* species with similarly rounded green ground-hugging leaves. The leaves of *Cyrtostylis* species are sparkling dewy beneath with prominent veins (but experience is needed).

<i>Cyrtostylis reniformis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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This is the more widespread of the two species. Where the two species co-occur, *C. robusta* tends to begin flowering about two weeks earlier than *C. reniformis*. However, differentiation is easy because of their distinctive leaves: *C. reniformis* has dull grey-green leaves and *C. robusta* has bright green (and often larger) leaves. This character is so consistent and obvious that identification is possible many weeks before and after flowering.

* <i>Cyrtostylis robusta</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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See comments under *C. reniformis* and also note the earlier peak and overall shorter flowering period, which can be a further aid to identification. It is an extremely coastal species, often confined to a few hundred metres from the shoreline.

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Dipodium

The single Tasmanian species is a highly distinctive summer-flowering leafless epiparasite.

<i>Dipodium roseum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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In full flower, this spectacular species is unmistakable and easily spotted. However, plants can already be detected in late spring by their fleshy dark purple flowering stems that look like asparagus spears. After flowering, the sturdy stems with withered flowers persist for many weeks. As with many species, seasonal conditions can affect flowering – this species has been observed flowering in May at Freycinet, for example.

Disa

This genus is represented by a single species in Australia and Tasmania. It is native to South Africa. It is a highly distinctive species, most easily recognised when flowering but also detectable prior to this from the clump-forming light green tuft of fleshy leaves (which dies down in summer and re-emerges in spring) and the long-persistent fertilised flower spikes brown off in summer and remain detectable for long periods (can last all year at some sites).

<i>Disa bracteata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Now known from several sites across northern Tasmania, all have flowering specimens during November, with buds and early flowers in late October.

Diuris

Diuris species have long, narrow grass-like leaves that may be nearly lax on the ground (so very hard to detect, especially in grassy vegetation) or erect in tufts (just as hard to detect in the absence of flowers, except perhaps in recently burnt areas). Flowering plants are easily detected due to their often large brightly coloured flowers. Some species have spectacular floral displays as a response to high intensity fires the preceding summer. Flowers wither quickly but are often still identifiable a week or two after flowering finishes.

<i>Diuris chryseopsis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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A typical Midlands grassland species where flowering usually occurs two weeks either side of 1 October, but a little later in other habitats elsewhere.

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* <i>Diuris lanceolata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A species from the northwest coast, where most flowering occurs in November (sometimes last half of October, depending on seasonal conditions).																								
<i>Diuris monticola</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A highland species, hence flowering later than the other Tasmanian species.																								
<i>Diuris orientis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A coastal and near-coastal species flowering for a short period with flowers generally gone by mid-November.																								
* <i>Diuris palustris</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A coastal species with quite a few early and late records but mostly peaking around October and into November.																								
<i>Diuris pardina</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A spring-flowering species (mainly early spring, often slightly before <i>D. sulphurea</i> where the species co-occur).																								
<i>Diuris sulphurea</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A spring-flowering species (mainly later spring, often slightly after <i>D. pardina</i> has finished flowering, most obvious where the species co-occur).																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
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Dockrillia

Dockrillia is detectable at any time of the year because the distinctive lithophytic patches of succulent leaves are present all year round. There is no doubt that detection is aided by the presence of the bright yellow flowers but these are certainly not critical, except for separation of subspecies.

<i>Dockrillia striolata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Both subspecies flower at the same time, perhaps slightly into November for subsp. *striolata*.

Eriochilus

This genus is represented in Tasmania by only one species, *E. cucullatus*, which is widespread at a range of elevations. The single leaf is only partly developed at flowering time. After the flower has withered, the characteristic ovate ground-hugging (or semi-erect) dark green leaf develops fully and remains present through winter and early spring. For a time, a second recently described species, *E. magenteus*, was considered to be present but this is now no longer considered the case.

<i>Eriochilus cucullatus</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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This species has a wide elevational range, with flowers first appearing in late January in lowland, much later at high elevations. Flowering can persist into April at some locations.

Gastrodia

The brown leafless stems of these saprophytic orchids are hard to see in their surrounds until the flowers are developed.

<i>Gastrodia procera</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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After fertilisation specimens of *G. procera* remain visible for many weeks, particularly obvious because of the massively swollen ovaries.

<i>Gastrodia sesamoides</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
------------------------------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

This species flowers well before *G. procera*. Unlike that species, fertilised specimens rarely persist because of the weaker scape, which withers rapidly and falls to the ground (sometimes the scape with fallen flower head looks like a "stick" of bracken).

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
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<i>Gastrodia surcula</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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This species has only recently been recognised as present in Tasmania. On the mainland, *G. surcula* occurs at higher elevations and flowers in December and January. In Tasmania, the species occurs at lower elevations (e.g. King Island, Hobart) and its flowering seems to coincide with that of both *G. sesamoides* and *G. surcula*. The status of the species remains somewhat uncertain in Tasmania because identification appears to rely on excavation of the rhizomes and tubers.

Glossodia

Tasmania has a single species of *Glossodia*, which is unmistakable when in flower, and also easily detected from leaves. The single hairy leaf develops in winter and is fully grown at flowering time.

<i>Glossodia major</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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This is one of the earliest orchids to appear in spring. It is present throughout spring, depending on the site and seasonal conditions.

x *Glossadenia*

This is a rarely encountered intrageneric hybrid between *Glossodia major* and *Pheladenia deformis*. Technically, both parents would need to be in flower in an area for this entity to be present but this does not always seem to be immediately obvious.

x <i>Glossadenia tutelata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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The flowering period appears to be mid-September to October. Flowers are most likely to be found in the first few years after a fire.

Hydrorchis

A single Tasmanian species in this genus formerly included in *Microtis*. Leaves are virtually impossible to detect in swampy grasslands and herbfields, but although the flowers are small, flowering plants are surprisingly easy to detect. Some authorities have placed this species back into *Microtis*.

* <i>Hydrorchis orbicularis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Although there are Tasmanian Herbarium records from as late as January, there is a strong peak in flowering in November.

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
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Leptoceras

Leptoceras is unmistakable when in flower, and also easily detected from leaves, often in colonies. The distinctive ground-hugging, bright green leaf is well developed before flowering and has a small ligule-like growth at the base.

<i>Leptoceras menziesii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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This species flowers mainly after fire although leaves may be found from late winter regardless of fire.

Lyperanthus

This genus has one representative in Tasmania. The single leathery leaf is fully developed by flowering time in spring. Although distinctive, leaves are almost impossible to find in the dense vegetation in which the plants tend to grow. The distinctive flowers are also surprisingly difficult to detect amongst the vegetation because of their dull colour that blends in.

<i>Lyperanthus suaveolens</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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These orchids can be identified well after flowering because the stiff plants remain intact and the flowers maintain their shape for a long time.

Microtidium

Despite being of very short stature, this species is relatively easy to detect because the whole plant is yellowish green. Some authorities have placed this species back into *Microtis*.

* <i>Microtidium atratum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Finished plants are distinguishable from other onion-orchids because the flower spike and withered leaf turn black.

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Genus and species	SPRING								SUMMER				AUTUMN				WINTER								
Microtis The green onion-like leaf is readily detected prior to flowering. Often fields of leaves are produced in open grassy or recently burnt sites. Plants are detectable for many weeks after fertilisation because the flower spike with dried capsules remains intact (if not mown down) although identification to species level will rarely be possible. Often occurs together with <i>Prasophyllum</i> species but these have a red leaf base (green in <i>Microtis</i>).																									
Microtis arenaria	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A	
A robust species favouring coastal lowland, often hard to distinguish from <i>M. unifolia</i> .																									
Microtis oblonga	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A	
Tends to flower somewhat later than the other species.																									
Microtis parviflora	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A	
Extends into higher elevations, hence has an extended flowering period.																									
Microtis unifolia	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A	
The most widespread species. It displays much variation and may prove to be a complex of species. Often encountered in disturbed places. The fields of leaves so often seen in slashed grassy playgrounds, parks and road verges invariably turn out to be <i>M. unifolia</i> . As with many species, seasonal conditions can affect flowering – this species has been observed flowering in mid-February in a low-lying area that was inundated until November, for example.																									

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Genus and species	SPRING				SUMMER				AUTUMN				WINTER			
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Orthoceras

A genus with a single species. A tuft of long grass-like leaves is well developed before flowering time (summer) but is very difficult to detect among the dense sedgy vegetation in which this species usually grows. Despite the highly distinctive appearance and colour of the flowers, flowering plants are also difficult to spot, as they simply blend in.

* <i>Orthoceras strictum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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The flowering period indicated is quite indicative but the specific flowering time may differ throughout the State (e.g. east to west, with some evidence that west coast plants may flower a little later).

Paracaleana

A genus with one species in Tasmania. A single thin reddish leaf is fully developed long before flowering time but is virtually undetectable among other vegetation.

<i>Paracaleana minor</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Recently fertilised flowers can be readily detected and identified.

Pheladenia

When flowering, this is a highly distinctive species (once included in *Caladenia*) because of its bright blue flowers and distinctive labellum. The leaves are indistinguishable from those of small-flowered *Caladenia* species.

<i>Pheladenia deformis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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Typically an early spring species with a peak in flowering in September. Can respond prolifically after high intensity fires.

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
Prasophyllum The single leaf is produced in early winter and is similar to that of onion-orchids but is reddish at the base rather than green. The flower spike emerges several weeks after the leaf is fully formed. With experience, the emergent leaves may be detected prior to flowering but identification of species requires flowers. Fertilised leek-orchids are difficult to identify with certainty. Emergence and flowering of many leek-orchids is highly dependent on fire.																								
Prasophyllum abblittorium	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A recently described species from wet heathland in northwest Tasmania, the species peaks in flowering from mid-October to early November.																								
Prasophyllum alpinum	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A typical high elevation species, usually above 1,000 m. Does not like fire.																								
* Prasophyllum amoenum	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A high elevation species (600 m at Snug Tiers, 1,100 m on Mt Wellington), appears to like disturbance but not necessarily fire. Flowering can extend to mid-March in some years.																								
* Prasophyllum apoxychilum	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Widespread in lowland areas (more common than initially thought), appears to like disturbance such as slashing and fire. Flowering time is variable, perhaps indicating the presence of additional taxa in the complex: there appears to be a peak in late October to mid-November on the Tasman Peninsula but populations from South Bruny, Lonnavele and Knocklofty seem to peak later (late December to late January).																								
* Prasophyllum atratum	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Little is known of this species but it has been in full flower on Three Hummock Island in the first two weeks of November, which is probably the best time to search for it. It appears to like slashing and probably fire.																								

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Genus and species	SPRING				SUMMER				AUTUMN				WINTER			
<i>Prasophyllum australe</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
A lowland summer species from damp heathlands. Responds well to high intensity fires the preceding season.																
<i>Prasophyllum brevilabre</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
Widespread in forests over a range of elevations. Responds dramatically to high intensity fires, with high numbers appearing where there were none before. A swamp form of this species tends to flower from late December to early January, and in the absence of fire.																
* <i>Prasophyllum castaneum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
An early summer species from damp coastal heath in southern Tasmania (so far). Likes disturbance. Can be confused with <i>P. concinnum</i> .																
<i>Prasophyllum concinnum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
A widespread species of peaty heath and heathy woodlands in the southern half of Tasmania (apparently replaced by <i>P. rostratum</i> in the north). Thrives on high intensity summer fires with sometimes 1,000s appearing in the first season where there were few before. Numbers decline rapidly in subsequent seasons.																
* <i>Prasophyllum crebriflorum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
A species of highland grasslands, with initial collections in the latter part of December and flowers withered after mid-January, but more recent collections into later January and into February (the species-complex of green-brown flowered <i>Prasophyllum</i> is confused and there may be additional taxa, or simply wide variation depending on elevation).																
<i>Prasophyllum elatum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A
A widespread coastal lowland species, identifiable well before and after flowering due to its stature. Likes disturbance such as slashing and especially high intensity fires. Black plants resembling burnt teatree stems are often seen in recently burnt scrub.																

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
* <i>Prasophyllum favonium</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A species from windswept wet heath in northwestern Tasmania. Likes fire.																								
<i>Prasophyllum flavum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A summer species of forest and woodland margins at lower elevations.																								
* <i>Prasophyllum incorrectum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A northern Midlands grassland species with a very short flowering peak around mid-October (into early November). Likes disturbance, specifically slashing, and would most likely respond strongly to grassland fires.																								
<i>Prasophyllum incurvum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A highland species (above 1,000 m in Central Highlands but 600 m at Snug Tiers) often growing amongst dense sedges, sometimes from cushionplants. Has a delayed fire response with plants most numerous a few years after, while vegetation is still fairly open. Surprisingly, it can flower as late as end May at Snug Tiers, even though this area is a much lower elevation than the Central Highlands. The taxonomic position of the species is uncertain, especially the relationship to <i>P. mimulum</i> .																								
* <i>Prasophyllum limnetes</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Only known so far from a shrubby swamp in northern Tasmania. The type specimen was collected on 17 December 1999. A study of the species at the type location indicated that the mean flowering date is 12 December but that the closely-related and superficially similar <i>P. rostratum</i> has a mean flowering date of 20 November.																								
<i>Prasophyllum lindleyanum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A lowland species, characterised by its overall bright green appearance and strong fragrance. Responds well to fire.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
* <i>Prasophyllum milfordense</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A lowland species of open <i>Eucalyptus viminalis</i> forest, with an apparently very restricted distribution in southern Tasmania. Likes disturbance (e.g. rabbit diggings) but may not like fire.																								
<i>Prasophyllum mimulum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A high elevation species from above 700 m, with flowering depending on actual elevation. See comments under <i>P. incurvum</i> .																								
* <i>Prasophyllum olidum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A northern Midlands grassland species with a very short flowering period, beginning when <i>P. incorrectum</i> at the same site has largely finished.																								
* <i>Prasophyllum perangustum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Only known from a grassy open forest near Hobart. Flowering appears to be stimulated by fire.																								
* <i>Prasophyllum pulchellum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A now poorly-understood species, apparently restricted to lowland peaty heathlands but also perhaps extending into drier open heathy woodlands. The relationship between <i>P. pulchellum</i> and <i>P. apoxychilum</i> is poorly-understood and southeast Tasmanian records of the former may be better attributed to the latter, restricting <i>P. pulchellum</i> to central northern and northwestern Tasmania (the issue with this is that the type location is Bruny Island). Apparently responds positively to fire.																								
* <i>Prasophyllum robustum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Originally known (in recent times) from a grassy <i>Eucalyptus obliqua</i> forest near Latrobe where it flowers in early November, the species has also been detected at Bridgenorth, also in mid-November.																								

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<i>Prasophyllum rostratum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A widespread species, mainly in northern Tasmania, including Bass Strait islands, but also extending inland as far as Fingal and Cressy, most strongly associated with frequently burnt heathland habitats. Apparently replaced by <i>P. concinnum</i> in southern Tasmania, although the relationship between the two species is unclear. The relationship between <i>P. rostratum</i> and <i>P. atratum</i> is also unclear. The peak flowering time is November, although there is considerable variation across its range.																								
* <i>Prasophyllum secutum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A northern species from grassy dune swales. Emergence and flowering is highly dependent on a high intensity summer fire the preceding season, so much so that chances of finding plants in the absence of fire are extremely low.																								
<i>Prasophyllum sphacelatum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Somewhat similar in appearance to <i>P. rostratum</i> , but a species of high elevation grasslands, flowering in December near Mathinna (800 m), and early to late January in the Central Highlands and Cradle Mountain area (1,100 m). There is confusion in the subalpine green-brown flowered <i>Prasophyllum</i> species and further collections are needed to clarify their status, especially <i>P. sphacelatum</i> , <i>P. tadgellianum</i> and possibly an undescribed species from the Vale of Belvoir.																								
* <i>Prasophyllum</i> sp. Arthurs Lake	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A poorly-known high elevation species with few collections, mostly from montane grasslands. Best available evidence suggests late December and January as the flowering period but given the uncertainty over taxonomy, further collections are needed to refine this. [Previously referred to as <i>Prasophyllum</i> aff. <i>montanum</i>].																								
* <i>Prasophyllum stellatum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Available evidence suggests that this is a late summer to early autumn species with most collections from the Storys Creek area in mid to late February. There is some confusion in the records of this species from other sites (e.g. Cluan Tiers) suggesting an earlier flowering time but this requires resolution. The relationship between several species in the <i>P. truncatum</i> species-complex requires resolution and this may affect the flowering period of different species.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
* <i>Prasophyllum tadgellianum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Known from a handful of places in the Central Highlands, flowering in January around 700 m elevation but a month later in higher and more exposed places.																								
* <i>Prasophyllum taphanyx</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A small grassland leek-orchid found in the northern Midlands, where it has a very brief flowering period (mid-October to early November).																								
<i>Prasophyllum truncatum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The confused taxonomy of the <i>P. truncatum</i> complex and its occurrence in various habitat types at a range of elevations perhaps explains the very wide flowering period of this species.																								
* <i>Prasophyllum tunbridgense</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A lowland grassland species with restricted distribution in the northern Midlands.																								

Pterostylis

Pterostylis species may grow as solitary individuals reproducing solely from seed, or form colonies by vegetative reproduction. At some stage in their life cycle all species produce a rosette of leaves, which may be present at the time of flowering in some species, while in others the rosette may form after flowering and wither again before the next season. The presence or absence of a rosette at flowering is an important character when searching for greenhoods and also aids in identification. Some rosettes are large and easy to spot (e.g. *P. cucullata*) and such plants can be counted even in the absence of flowers, while in other species rosettes are tiny and difficult to detect (e.g. *P. aphylla*). To the experienced eye the size, arrangement, colour and texture of rosette leaves are sufficient for identification of the species, or at least groups.

<i>Pterostylis alata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This is one of Tasmania's true winter greenhoods.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Pterostylis aphylla</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The species in the complex comprising <i>P. aphylla</i> , <i>P. parviflora</i> , <i>P. atriola</i> and <i>P. uliginosa</i> can be identified by floral features but also by a combination of fleshiness of the plants, habitat and flowering time. Flowering plants generally without rosettes but these appearing shortly after. <i>P. aphylla</i> is a summer greenhood with a long flowering period centred around November to mid-January.																								
<i>Pterostylis atrans</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A summer greenhood flowering late January at the higher end of its elevational range.																								
* <i>Pterostylis atriola</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
See also comments under <i>P. aphylla</i> . <i>P. atriola</i> is an autumn greenhood with a short flowering period. Finished flowers of <i>P. atriola</i> can be readily differentiated from <i>P. parviflora</i> (which can start flowering in March) by close examination of the hood to check for little bumps (<i>P. atriola</i> is scabrid, <i>P. parviflora</i> is not).																								
* <i>Pterostylis commutata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A mid-summer greenhood of grasslands in the northern Midlands, usually in full flower around Christmas time, when the surrounding vegetation has dried off. A rosette is present at flowering although usually withering. Can be very difficult to find amongst dense grass.																								
<i>Pterostylis concinna</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A late winter/early spring species forming clonal colonies (some seasons start in mid-May). Rosettes present at flowering time. This species can be identified from recently finished flowers if the distinctly notched labellum apex can be dissected out. Can hybridise with <i>P. alata</i> to produce what is loosely known as <i>P. x toveyana</i> (although strictly this entity is described from a hybrid between <i>P. concinnum</i> and a non-Tasmanian species), typified by the leafy stem and slightly notched labellum.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
* <i>Pterostylis cucullata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A late spring species that forms massive colonies but is surprisingly difficult to detect because plants can occur amongst dense grass and beneath low coastal scrub. Once found, however, even in the absence of flowering plants, the distinctive rosettes can be easily counted. There is a peak in flowering between mid-October and mid-November but often within one colony there are plants from early bud through to fully fertilised flowers. The most recent colony detected near Temma flowers as early as mid-August.																								
<i>Pterostylis curta</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This is an early spring species, forming clonal colonies. Rosettes present at flowering time.																								
<i>Pterostylis decurva</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A summer/autumn greenhood with a large elevational range and flowering period.																								
<i>Pterostylis dubia</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A higher elevation leafy greenhood forming small clonal colonies, flowering in summer.																								
* <i>Pterostylis falcata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
There is confusion between <i>P. falcata</i> and <i>P. furcata</i> , which were for some time considered synonymous, exacerbated by the new <i>P. lustra</i> (a small lookalike of <i>P. falcata</i>). The well-known occurrences of <i>P. falcata</i> in the northwest proved to be <i>P. lustra</i> . Examination of herbarium specimens confirmed the presence of <i>P. falcata</i> from northern Tasmania. On the mainland, <i>P. falcata</i> is regarded as flowering between September and January. Based on herbarium records, there may be a peak in late December into January in Tasmania.																								
<i>Pterostylis foliata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A late spring greenhood but with an extended flowering period as it occurs from lowland up to 1,000 m elevation.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Pterostylis furcata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
See also under <i>P. falcata</i> . <i>P. furcata</i> is now considered to be a species of higher elevations and cold river basins, and is known from Woods Lake area, the northeastern highlands and North Esk River basin. The plants flower from early December at lower elevations through to the end of January at higher elevations. The flowering period may extend to late November if a population near Beaconsfield is confirmed as this species.																								
* <i>Pterostylis grandiflora</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A true winter greenhood with a peak flowering period spanning May, June, July and August. Withering flowers are readily identifiable because of the highly distinctive cobra-like large hood. This species is adversely affected by fire until dense undergrowth is re-established.																								
<i>Pterostylis x ingens</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
An apparent natural hybrid between <i>P. nutans</i> and <i>P. falcata</i> , which assumes that it occurs where both parents flower at the same time. Oddly, <i>P. nutans</i> rarely flowers as late as December (at least in Tasmania), when <i>P. falcata</i> is in flower (see also comments under <i>P. falcata</i> and <i>P. furcata</i>). The only two confirmed collections are from December, both from the West Tamar where <i>P. falcata</i> has never been recorded (the current record of the species from near Beaconsfield is probably better placed in <i>P. furcata</i>). The indicated flowering period is from the mainland where the taxon is better known.																								
<i>Pterostylis lustra</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This new species was described in 2006 and is a small lookalike of <i>P. falcata</i> . The well-known occurrences of <i>P. falcata</i> in the northwest proved to be <i>P. lustra</i> . Confirmed plants of <i>P. lustra</i> flowered in early November.																								
<i>Pterostylis melagramma</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This is one of four species in the <i>P. longifolia</i> species-complex in Tasmania, comprising <i>P. melagramma</i> , <i>P. stenochila</i> , <i>P. tunstallii</i> and <i>P. williamsonii</i> . They are characterised by spreading linear stem leaves and the absence of rosettes at flowering time. They flower from winter to early spring, and are easily distinguished by the colour and shape of the mature labellum. Recently fertilised flowers and budding flowers can be dissected and the labellum examined to make an identification. The peak flowering time is late August to end of September but can extend into the latter parts of spring at some sites.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Pterostylis mutica</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A species of uncertain status in Tasmania with two possible collections from 23 October and 11 November but on the mainland it apparently flowers from September through to December. Species in the <i>P. mutica</i> species-complex (<i>P. mutica</i> , <i>P. rubenachii</i> , <i>P. wapstrarum</i>) and <i>P. cycnocephala</i> species-complex (<i>P. pratensis</i> , <i>P. ziegeleri</i>) are similar in general appearance and require close examination of the labellum appendage. They are short fleshy plants with small flowers and a withering rosette at flowering time. The species of lowland grassy habitats can occasionally co-occur.																								
<i>Pterostylis nana</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A spring greenhood forming clonal colonies, with rosettes present at flowering time.																								
<i>Pterostylis nutans</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species has one of the longest flowering periods of <i>Pterostylis</i> in Tasmania, often flowering during winter and spring. It forms extensive clonal colonies, but only some of the plants produce flowers in any one season.																								
<i>Pterostylis parviflora</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
See also comments under <i>P. aphylla</i> . <i>P. parviflora</i> is an autumn-flowering greenhood. Finished flowers of <i>P. parviflora</i> can be readily differentiated from <i>P. atriola</i> (which can still flower in March) by checking the hood for little bumps (<i>P. parviflora</i> is smooth, <i>P. atriola</i> is scabrid).																								
<i>Pterostylis pedoglossa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A lowland (mainly) autumn-flowering greenhood forming clonal colonies with rosettes present at flowering.																								
<i>Pterostylis pedunculata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A distinctive small greenhood forming clonal colonies with rosettes present at flowering. Flowering time starts late winter near the coast, early spring further inland. The species has a long flowering period because it occurs in a wide range of habitats from sea level to higher elevations.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Pterostylis plumosa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The larger of two distinctive greenhoods with yellow plumose labellum (the other is <i>P. tasmanica</i>) and a rosette at flowering time.																								
* <i>Pterostylis pratensis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A highland greenhood similar to the lowland <i>P. ziegeleri</i> but flowering later because of the elevation. Species in the <i>P. mutica</i> species-complex (<i>P. mutica</i> , <i>P. rubenachii</i> , <i>P. wapstrarum</i>) and <i>P. cycnocephala</i> species-complex (<i>P. pratensis</i> , <i>P. ziegeleri</i>) are similar in general appearance and require close examination of the labellum appendage. They are short fleshy plants with small flowers and a withering rosette at flowering time.																								
* <i>Pterostylis rubenachii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A species of restricted distribution in the northwest, with a short peak in flowering. See also comments under <i>P. pratensis</i> .																								
* <i>Pterostylis sanguinea</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A winter-flowering greenhood from the far northeast and Bass Strait islands distinguished by its large red flowers and leafy stem, but rosettes absent at flowering time. In Tasmania, flowering is mainly in late June to late July.																								
<i>Pterostylis scabrda</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A short sturdy greenhood mainly from higher elevations, forming clonal colonies with rosettes present at flowering. Flowering time depends on elevation and can be as late as early February at high elevations.																								
* <i>Pterostylis squamata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A mid-summer greenhood with reddish flowers and a rosette that is withering at flowering time, growing in dry sands or gravels.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Pterostylis stenochila</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
See also comments under <i>P. melagramma</i> . The peak flowering time is July to August (perhaps a little earlier than the peak of <i>P. melagramma</i> , although they do co-occur and flower at the same time).																								
<i>Pterostylis tasmanica</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The smaller of two distinctive greenhoods with yellow plumose labellum (the other is <i>P. plumosa</i>) and a rosette at flowering time. It has a coastal distribution.																								
* <i>Pterostylis tunstallii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
See also comments under <i>P. melagramma</i> . <i>P. tunstallii</i> is only known from the eastern Bass Strait islands, where it flowers in throughout July to November, sometimes as late as December.																								
<i>Pterostylis uliginosa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
See also comments under <i>P. aphylla</i> . In Tasmania <i>P. uliginosa</i> is a summer-flowering greenhood with a short flowering period.																								
* <i>Pterostylis wapstrarum</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A lowland greenhood of inland grassy habitats and sometimes co-occurring with <i>P. ziegeleri</i> . See also comments under <i>P. pratensis</i>																								
<i>Pterostylis williamsonii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
See also comments under <i>P. melagramma</i> . Flowering occurs in spring, mainly in July to September, but can extend into October at some sites in some years.																								

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* <i>Pterostylis ziegeleri</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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This species now includes both coastal populations (e.g. Cape Portland, Arthur River area, South Arm) and inland populations (which used to be known as *P. cycnocephala*) and occasionally co-occurs with *P. wapstrarum*. See also comments under *P. pratensis*.

Pyrorchis

This genus is represented by a single species in Tasmania. The name refers to the very strong response to fire. The leaves and flowers are most noticeable in burnt habitats, sometimes densely occupying vast areas of ground laid bare by fire.

<i>Pyrorchis nigricans</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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A distinctive spring-flowering orchid, flowering profusely after disturbance, most notably fire, sporadically in other years. In the absence of flowers, colonies are easily detected by the large, leathery, blotched, round leaves that already appear in autumn.

Sarcophilus

This is a genus of epiphytic evergreen orchids, represented by a single species in Tasmania. While it is easier to detect the plants when in full flower, non-flowering plants are easy to find by looking for the dark green lanceolate leaves growing in the shape of a star and clinging to the bare trunks of the host. The long stems and roots adhering closely to the host are also good pointers. The plants are often at about eye level so scanning the canopy is not required.

<i>Sarcophilus australis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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This species occurs in moist gloomy gullies and forests with high humidity. A very long flowering time is indicated although most would consider the species to flower mainly in November and December. There have been recent reports of the species still in flower in late March (24-26) in northeast Tasmania.

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Genus and species	SPRING				SUMMER				AUTUMN				WINTER			
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Spiranthes

This genus is represented in Tasmania by two species: *S. australis* is the widespread lowland and most familiar species, and *S. alticola* is recently described and its distribution and status is still uncertain but it occurs at higher elevations. Unless in flower (the bright pink spiral inflorescence is unmistakable), the plants are virtually impossible to detect because the basal tuft of narrow leaves is usually hidden amongst similarly coloured grasses, sedges and rushes. While the plants can be evergreen, some may become leafless and dormant in dry years.

<i>Spiranthes australis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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This species grows in the margins of lowland ephemeral swamps and marshes and is best searched for in the flowering period (but fertilised inflorescences remain standing and recognisable for some weeks after).

<i>Spiranthes alticola</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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A newly recognised species, predominantly of higher elevations. On the mainland, the species flowers between December and March but until more formal collections are made in Tasmania, its flowering time in this State is not well known. It is very difficult to determine the two species based on herbarium specimens but higher elevation collections of *Spiranthes* in Tasmania have been made in late January and early February (e.g. Woods Lake). The type specimen was collected on 20 February (ACT).

Thelymitra

Thelymitra species are generally mid-spring to early summer flowerers, a little later at higher elevations. All species have a single basal leaf that appears months before flowering but leaves are rarely of assistance in identification (except for a few distinctive species and to those familiar with the genus). The species can be identified by examination of the column but this requires some experience. The columns of young buds are usually not helpful as they are often not fully developed and lack colour. All species open their flowers in response to warm sunny weather, some readily, others tardily. In poor weather, quite a few self-pollinate without ever opening. Once fertilised, *Thelymitra* plants can persist well into the next season with brown empty capsules but identification at this stage is not possible (except for a few highly distinctive species such as *T. aristata*). Many species respond well to fire (slashed fire breaks and road verges are also a good environment to search).

<i>Thelymitra aggericola</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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A pale-blue species, typically from rocky ground in the northwest wet heathlands.

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* <i>Thelymitra antennifera</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the few yellow sun-orchids, characterised by the distinctive “ears” on the column. In other States it may flower from July through to December but in Tasmania a week either side of 1 October is a good guideline for surveys. Fire promotes flowering the following spring.																								
<i>Thelymitra arenaria</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the species in the <i>T. pauciflora</i> species-complex and still poorly-known. A rather sturdy species flowering a little later than other species in the same location. Separation of <i>T. arenaria</i> from <i>T. bracteata</i> remains complicated in Tasmania, as the two co-occur and flower at the same time (at last at Rosny Hill in southeast Tasmania).																								
<i>Thelymitra aristata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The tallest and sturdiest species in Tasmania, with numerous large flowers. This species is easily identified by the distinct column hood. Responds well to fire, although often those plants are shorter than usual. It has a fairly long flowering period but with an apparent peak in November, perhaps a little later in western areas. This is one of the few species where a reasonably positive identification can be made based on fertilised specimens because of their stature and remnants of the column.																								
* <i>Thelymitra atronitida</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the species in the <i>T. pauciflora</i> species-complex and only recently recorded for Tasmania. So far early November appears to be the best survey window.																								
* <i>Thelymitra benthamiana</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Impossible to confuse with any other Tasmanian species. Recorded from two colonies on Flinders Island only, where they begin flowering in the first week of November.																								
* <i>Thelymitra bracteata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the species in the <i>T. pauciflora</i> species-complex and still poorly-known. The main known Tasmanian site (Rosny Hill) has fully flowering specimens in the first week of November note that this site also appears to have flowering specimens of the closely-related and superficially-similar <i>T. arenaria</i> at the same time.																								

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<i>Thelymitra brevifolia</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the species in the <i>T. pauciflora</i> species-complex and still poorly-known. It is one of the few species that can be identified with reasonable certainty from the scabrous, wide flat leaf with a purplish tinge.																								
<i>Thelymitra carnea</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
An uncommon species often confused with <i>T. rubra</i> , distinguished from it by the erect and slender column arms, flower colour (redder) and tardily opening flowers.																								
<i>Thelymitra circumsepta</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A late flowering species with a wide elevation range (sea level to 700 m). Highland populations flower later in the indicated period.																								
<i>Thelymitra cyanea</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the later flowering species in Tasmania, sometimes confused with <i>T. erosa</i> although the column is distinctive. Where the two species grow together, <i>T. cyanea</i> starts flowering when <i>T. erosa</i> is just about finished. Flowering is stimulated by fire.																								
<i>Thelymitra erosa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the later flowering species in Tasmania, sometimes confused with <i>T. cyanea</i> although the column is distinctive. Where the two species grow together, <i>T. cyanea</i> starts flowering when <i>T. erosa</i> is just about finished. Flowering is stimulated by fire.																								
<i>Thelymitra exigua</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the species in the <i>T. pauciflora</i> species-complex and still poorly-known. Tasmanian records show a peak in flowering in the first half of November.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Thelymitra flexuosa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the few Tasmanian species with yellow flowers. Reasonably positive identification can be made from fertilised specimens because of the thin and wiry zig-zagging flower stem. Flowering is strongly stimulated by fire.																								
<i>Thelymitra hiemalis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Only recorded once to date from a single flowering specimen near Margate, southeast Tasmania, recorded on 29 June 2012 i.e. mid-winter. On mainland Australia, this species is reported flowering from June to August.																								
* <i>Thelymitra holmesii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A later flowering species in the <i>T. pauciflora</i> species-complex, distinguished by dark blue flowers and untidy cream or yellow hair tufts. Searching for this species can be difficult as the flowers only open on very warm sunny days.																								
<i>Thelymitra imbricata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Largely known from grassy habitats in the northern Midlands but may occur elsewhere. A field character is that the flower segments are broad and overlapping, causing advanced buds and half-closed flowers to have a swollen appearance.																								
<i>Thelymitra improcera</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
An as yet poorly-known species from Victoria and King Island, and more recently northwest Tasmanian mainland and southern Tasmania, with peak flowering in November.																								
<i>Thelymitra inflata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the species in the <i>T. pauciflora</i> species-complex and still poorly-known, with Tasmanian records from late November to mid-December.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Thelymitra x irregularis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Described as a natural hybrid between <i>T. ixioides</i> and <i>T. carnea</i> , but the name is also applied to very similar hybrids involving <i>T. juncifolia</i> and <i>T. rubra</i> .																								
<i>Thelymitra ixioides</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species has been a dumping ground for any spotted sun-orchid, especially <i>T. juncifolia</i> , but they can be separated by column details (if the two species are accepted as separate).																								
* <i>Thelymitra jonesii</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The broad flowering period indicated is based on the old concept of <i>T. azurea</i> , from which the endemic <i>T. jonesii</i> has been segregated. The few records of this rare orchid indicate a narrow search window of about a week either side of 1 November. The column is unmistakable and can be used to identify immature and recently finished flowers. This species also has distinctive buds, a character that can be used to determine numbers without dissecting additional plants. This species responds strongly to fire and emergence is more sporadic in subsequent years.																								
<i>Thelymitra juncifolia</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species was previously included in <i>T. ixioides</i> , but is apparently more common and widespread. See also comments under <i>T. ixioides</i> .																								
<i>Thelymitra longiloba</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A poorly-known species with an apparent flowering peak spanning November.																								
<i>Thelymitra lucida</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the species in the <i>T. pauciflora</i> species-complex and still poorly-known from Tasmania with the only flowering record in the first week of November.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
* <i>Thelymitra malvina</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Most flowering records are from the first half of November.																								
<i>Thelymitra x merraniae</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This occasional cross between <i>T. ixioides/juncifolia</i> and <i>T. nuda</i> is poorly-known from Tasmania, with just a single record from early November.																								
* <i>Thelymitra mucida</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The presence of this species in Tasmania has only recently been confirmed with collections from the Arthur-Pieman Conservation Area on 10 November 2009 and the Port Sorell area on 19 November 2010. Older collections span the November to early December period. Based on Victorian and Tasmanian records, November appears to be the best time to look for this species.																								
<i>Thelymitra nuda</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A large-flowered species with freely opening flowers, often confused with members of the <i>T. pauciflora</i> species-complex (most of which tend to open tardily).																								
<i>Thelymitra pauciflora</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A small-flowered, tardily-opening species. <i>T. pauciflora</i> has for a long time been a dumping ground for any blue, non-spotted, small-flowered sun-orchid that was not <i>T. nuda</i> . Several new species have been described within the <i>T. pauciflora</i> species-complex in 2004 and field workers will need to familiarise themselves with these.																								
<i>Thelymitra peniculata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
One of the species in the <i>T. pauciflora</i> species-complex and still poorly-known from Tasmania, where most confirmed records are from late October.																								

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Genus and species	SPRING						SUMMER						AUTUMN						WINTER					
<i>Thelymitra polychroma</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A species with a distinctive and more colourful column than other species. Flowering strongly stimulated by fire, with a peak in November.																								
<i>Thelymitra rubra</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A common and widespread species. It is easily recognised by its bright pink flowers but watch for <i>T. carnea</i> (see also under that species). Flowering strongly stimulated by fire.																								
<i>Thelymitra silena</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A species sometimes as tall and sturdy as the well-known <i>T. aristata</i> but easily distinguished by the distinctive column, with peak flowering in November.																								
<i>Thelymitra simulata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
Apparently a highland species known in Tasmania from Mathinna Plains, where it flowers in early December, although there are now also several suspected lowland occurrences.																								
<i>Thelymitra spadicea</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A poorly-known species, so far recorded in the northwest and north coast, where it flowers in the first half of November.																								
<i>Thelymitra sparsa</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A spotted high elevation species with sparse hair tufts, so far only known from Snug Tiers and Mt Wellington, where it flowers from mid-December to early January.																								

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Genus and species	SPRING							SUMMER				AUTUMN				WINTER								
<i>Thelymitra x truncata</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This is a natural hybrid between members of the <i>T. ixioides</i> species-complex and the <i>T. pauciflora</i> species-complex (several species potentially involved) and appearing with a wide array of different columns, depending on the parents (the taxon may not even be present in Tasmania, possibly replaced by species such as <i>T. spadicea</i> and <i>T. simulata</i>). Flowering time is likely to match that of its local parents.																								
<i>Thelymitra viridis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A small species with a distinctive light green overall colour, including its typically short swollen buds, widespread in swamp margins and wet coastal heath. Note that this species was (incorrectly) described in <i>The Orchids of Tasmania</i> under the name <i>T. arenaria</i> .																								

<i>Thynninorchis</i> A genus of two species, both leafless saprophytes that reproduce only from seed. The tiny tubers are dormant during late winter and spring and flowering occurs in summer. The species are highly cryptic and extremely difficult to detect during routine surveys even at the right time of year.																								
* <i>Thynninorchis huntiana</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
The long flowering period indicated is based on Australian mainland information, where it is largely a highland, even alpine species. The single Tasmanian record is from a small lowland site on Flinders Island on 3 January 1972, but it has not been seen there since. Any searches should probably be conducted two weeks either side of New Year's Day.																								
*<i>Thynninorchis nothofagicola</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
This species is known from one site in wet forest in the southwest, where it has only been seen in three seasons since its discovery in 1994. The core flowering period seems to be the month of February, probably the earlier part. However, the plants are so difficult to spot in the gloomy light conditions that it is hard to believe that they might not have been overlooked elsewhere in similar habitats. Any searches should probably start in late January and be repeated two or three weeks later.																								

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<i>Genus and species</i>	SPRING				SUMMER				AUTUMN				WINTER											
<i>Townsonia</i> A genus with two species, one in New Zealand, the other endemic to Tasmania. They are evergreen orchids, forming loose groups by vegetative reproduction. Non-flowering plants have a leaf held above the litter or moss level by a short stalk, while flowering plants have a sheathing leaf halfway up the stem.																								
<i>Townsonia viridis</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
A summer-flowering higher elevation orchid (but to lower levels in western Tasmania), with local flowering time depending much on elevation. In searches for this species, the bright green leaves are often spotted first, as the small flowers are dull and blend into the background.																								