

GIROS EUROPEAN NATIVE ORCHIDS

GIROS ORCHIDEE SPONTANEE D'EUROPA

Supplements

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ORCHIDS OF ITALY

Guide to the Native Orchids in Italy Third edition completely updated 2024 corrected and further updated

English version edited by GIROS translation by Mauro Biagioli, consultancy by J.M.I. Klaver



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MEMENTO

This English version of the third edition (2024) of the GIROS Paper Guide has been prepared for enthusiasts, scholars, and general readers (orchidophiles/orchidologists) who are not familiar with the Italian language. Apart from the Foreword, this version focuses exclusively on the orchid taxa reported in Italy, which constitutes the central and predominant part of the book, from page 79 to page 452. The first part (general chapters) and the last part (glossary and bibliography) are excluded. Additionally, due to space limitations, all graphic and illustrative materials are not reproduced.

It is assumed that the reader already possesses the Italian version of the book in order to view the already published images. To facilitate consultation, the corresponding page numbers from the book are indicated in bold at the beginning of each taxonomic group. The sequence of the groupings and taxa remains the same as in the book. An alphabetical index of taxa, with page numbers for each entry, is provided at the end for easier searching.

Another important consultation tool is our GIROS website, which is continuously expanding with photo galleries and real-time updates. Complete access is available to all users through the demo version.

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FOREWORD

In the belief of satisfying repeated requests from non-Italian orchid enthusiasts, we set up this shortened English version of the GIROS Guide to Italian orchids (3rd edition, 2024). Fifteen years after the first edition (2009) and eight years after the second one (2016), this third edition of a fundamental work for orchid enthusiasts, whether experts or beginners, is published. Actually it is not a simple update due to the normal progress of studies on European and circum-Mediterranean orchids, but an in-depth systematic rethink. Much more than in the past, we wanted to underline the central role of taxonomy, fundamental to outline a better understanding of the basic components (genera and species) of this fascinating family, and especially their often complicated relationships.

Our masters, particularly the curators of the first two editions, the late Paolo Grünanger and Bruno Barsella, have indelibly passed on their wisdom and experience to us, as did the founder of the GIROS, Paolo Liverani, who first left us, 20 years ago. Their teaching can be summed up in these words: commitment, enthusiasm and passion, but also scientific rigour and disclosure, common sense and reason, respect for all points of view, taking nothing for granted and choosing doubt, not packaged truths. We all know how particularly true it is for these plants. Several *Orchidaceae* aggregates are still in full and often controversial evolution, and therefore difficult to decipher with traditional morpho-phenotypic methods. In this regard, today we cannot fail to take into account the great progresses of molecular genetic studies, which are truly shedding new light on the phylogeny of this family, whereas retaining several 'dark' sides.

Despite the cutting of many parts present in the second edition, judged to be non-essential, the third edition resulted in a notable increase of pages (almost 500) and iconographic material, mainly due to the increase in the number of records of the taxa treated. Increase not only due to the proliferation of new taxa in some genera, a phenomenon that has been underway for at least three decades and which does not seem to stop, but also due to the new taxonomic structure centered on the valorisation of the two main ranks (genus and species, with the consequent almost disappearance of subspecies) but also of some intermediate ranks (sections and series), hitherto neglected and now instead considered useful for the purposes of systematic orientation. This third edition of the GIROS Guide to Italian Orchidaceae has been in preparation since the end of 2021, when we started working on the long lasting project of the new GIROS website. At that time it was already clear that, if the immediate objective of our work was the implementation of the site, the ultimate goal was the third edition of the paper book, for which we had signed the contract with our publisher. Both projects were evidently linked, although the way in which a website is compiled is obviously different, with its versatility and updatability compared to the static nature of a paper book (at least until the subsequent edition).

We have kept an eye on the deepening and extension of molecular genetic analysis techniques, the increasing importance of evolutionary kinship relationships (phylogeny) and, in any case, the acquisition of new data, including phenotypic characterisation of species. The traditional approach of morphological comparison still remains the most important key to the taxa identification, especially for enthusiasts, although it is completely insufficient in the frequent cases of problematic complexes due mainly to the great variability and/or similarity of their components. Anyway in these cases, an attempt has always been made, as far as possible, to give a concise idea of the various opinions, even if conflicting with each other. We have always been inspired and focused on these following criteria, in brief:

1) A new 'taxonomic tree'.

Our first commitment has been to set up a new 'taxonomic tree' that would better highlight the distances or proximities or even the links between the various species. In fact, we consider this a pivotal tool, and

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not only for neophytes, a better orientation among often complicated relationships, especially those more conditioned by phylogenetic than phenotypic factors. In the second edition of our guide, we had proposed a classification based on the intermediate ranks between family and genus (Dressler 1993, in Grünanger 2016: 11), taking into account the phylogenetic tree of Bateman et al. (2003, in Grünanger 2016: 49), which showed the relationships lower to the species level, but not the various intermediate ranks between genus and species. In fact, it is precisely the way in which species are grouped together within 'complicated' genera that should be indicated as clearly as possible in order to orientation (even if often it is impossible, and we must limit ourselves to formulating hypotheses or giving rough indications). Thus, again in Grünanger (2016), subspecies rank was used extensively (often with not very distinctive characteristics), with the purpose of orientating towards the respective reference species, especially in cases of more complex aggregates. But if this might seem a good method for popular or didactic purposes, it is not necessarily so from a scientific point of view, and actually it can lead to further complications.

2) The subspecies, an 'unconvincing' rank.

A new understanding has therefore arisen that this 'pragmatic choice' was not sufficient to justify the use (and in some cases the abuse) of subspecific ranks, not least because the concept of subspecies remains vague and poorly shared (after all, views are not entirely unambiguous even for the much more important concept of species). Today there is a strong tendency to limit the use of this rank, or even to renounce it, considering it a frequent source of ambiguity and confusion, also with the purpose of a more simplification. These positions are clearly expressed by Kreutz (2021, {2024}), who himself had made extensive use of this intermediate rank in a not too distant past. Moreover, for the ICN Code of Nomenclature, subspecies is an entirely negligible rank, like all intermediate ranks preceded by sub-, providing in Art. 1 for the use of 2 main ranks (genus and species) and 4 secondary ranks (sectio and series, varietas and forma), although with a residual theoretical possibility of using further sub-divisions (Art. 4.2, Turland et al. 2018). In our opinion, a precise requirement is needed to be able to classify a taxon as a subspecies. This binding criterion is the definite reproductive isolation from the reference species: usually a geographical isolation, but it can also be caused by clear ecological or phenological barriers. If these are doubtful, or if the range of the putative subspecies is too close to or even overlaps with that of the reference species, we almost always consider that entity as an autonomous species, or even consider it at a lower variant of a species, a variety (usually ecotypic) or a form (usually morphotypic). As a result, subspecies were confirmed in only three cases in our book.

3) The increase in the number of taxa.

With these criteria, it is clear that, as subspecies have almost disappeared, the number of species has greatly increased in this third edition compared to the previous one. But this increase has been largely due to the description of new species, progressed over the last decade in some taxonomically complicated genera: not only *Ophrys*, but also *Epipactis* and *Serapias*. The comparison shows that the number of the main taxa records (total species + subspecies) has risen from 230 (2016) to {271} (2024), an increase of ab. 13 %; the number of variants (which do not have their own records, but are indicated in the records of the reference species) has also increased from 44 to {55}, although this event is more insignificant, due almost exclusively to *Ophrys* and in particular to the still dubious taxonomy of the *O. apifera* 'forms'. {The 271 main reference taxa consist of 268 species + 2 subspecies + 1 variety. In addition, 55 taxa listed at lower ranks are mentioned in the reference taxa sheets (26 varieties, 29 forms).}

The other 'novelties' summarised in the Introduction to the book: 4) Hybrids. 5) The introductory chapters. 6) Iconography, are not relevant for the purposes of this English version. Concerning Hybrids, we are planning a specific publication entirely dedicated to all orchid hybrids reported in Italy (650 to 700 published nothotaxa!). General introductory chapters are not considered in this version.

Finally, in the paper book we had to reduce significantly the iconographic set due to space requirements, and remove it altogether in this English version. Please refer to the paper Italian book or, better, to the GIROS website, which features an ever-growing selection of images.