

THE GENUS SEPTORIA, PRESENTED IN TABULATION WITH DISCUSSION

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INTRODUCTION

Much difficulty is often encountered in determining parasitic fungi. Large genera which parasitize a large number of host plants are particularly troublesome and often cause those not acquainted with the genus to give up in despair. Septoria is one of the most troublesome of the larger genera and plainly in need of systematic and morphological study. Such a study will require years of work, but a simple method of listing species according to minimum spore length has been found of great help and is a convenient basis for studies in morphology besides affording means for rapid determination. In the following pages the Septoria species described in Saccardo's *Sylloge Fungorum*, Vols. 1-22 are listed in tabular form including the more important morphological characters together with a list of host plants and localities from which the species are reported. The family of each genus of hosts has been given a number and added to the list.

CHARACTERS OF THE GENUS

The characters of the genus *Septoria* given by Saccardo, Lindau and others are essentially as follows: Pycnidium, subcuticular, globose-lenticular with a protruding ostiole; maculicole. Spores rod-shaped to filiform, many septate or many guttulate or continuous, hyalin. Basidia none or small. In the main features this description does not differ from that of *Rhabdospora*, the nearest ally, which is reported as not forming spots or of growing parasitically upon the stems of plants instead of leaves. The property of forming spots or of growing parasitically upon the stems of plants is not a really valid character for the separation of genera. Diedecke,¹ therefore, makes the further distinction that the

¹ Diedecke *Die gattung septoria*. *Ann. Myc.* 10, 478, 1912.

pyrenidia of Rhabdospora possess thin-walled cells instead of thick-walled cells as in Septoria. Even this separation seems artificial and insufficient for the two genera. His definition of the genus Septoria, nevertheless, which appears to be more comprehensive and exact than those quoted above, follows: "Septoria umfasst alle diejenigen Arten, deren Fruchtlager sich durch Ausbildung einer Decke in ein pseudopyknidiales Gehäuse umwandelt, das oben mehr oder wenig breit geöffnet ist." *Phleospora*, regarded as the only other very close relative of *Septoria* is stated by Diedecke to be synonymous with *Cylindrosporium*.

RELATION OF SPECIES TO HOST PLANTS

Popular methods of naming *Septoria* species consist of determinations of the generic characters and reliance upon the host index in ascertaining whether the species is new or old. The majority of the species of *Septoria* have been reported from flowering plants and when we consider that there are some 1,200 species of *Septoria* and less than 280 families of flowering plants, it will be seen that, if equally distributed, not less than four species must have been described from every family of flowering hosts in existence. Actual facts, however, show that from the more common families many more than this number have been described while from the less common families none at all are recorded. For instance: from the family Compositae, there are listed 113 species; from the Gramineae, 86; Leguminosae, 50; Rosaceae, 53; Umbelliferae, 52; Labiateae, 33; Caryophyllaceae, 34; Cruciferae, 22 and Solonaceae, 19.² Thus from nine families of flowering plants there are listed 38% of the described species of *Septoria*.

It has been found from a comparative study of the species that many reported from different genera of the same family of hosts have the same spore length and agree in all other described morphological particulars. From this it would seem as though the generic host limit

² Species without spore measurements are not included in this summary.

were too small. This fact, cannot, however, be accepted without thorough cultural studies of the genus.

SPORE MEASUREMENTS

Attention is called to "inaccuracies" in the measurement of spores best seen by a comparison of the number of species having a given minimum length. Thus the number of species having minimum lengths of 10, 20, 30, 40, 50, and 60 mu. is much greater than the number with lengths of 15, 25, 35, 45, 55, etc., and these in turn are more numerous than those with minimum lengths of 14, 24, 34, 44, etc. This is also true if we consider maximum measurements and suggests that the absolute accuracy of these measurements is of questionable value. It would thus appear to be more important to state the length in an even number of microns, say 20 to 30, or 25 to 35 than to use figures such as 19 to 28, or 24 to 36 simply because these measurements happen to give the range of the particular specimens examined.

IMPORTANT SPECIFIC CHARACTERS

Of the various specific characters commonly mentioned in descriptions none seem more important than spore length which, in *Septoria*, is to some extent correlated with diameter and septation. As regards spore color, all spores should be colorless, yet if we examine the tables we find a number of species possessing spores with more than permissible color. It is probable that these species belong elsewhere. Ostiole measurements are thought to be of value and deserve more attention than has formerly been given them. The host is, under the present system of determination, the factor most used in identification, and its use affords the only convenient means of tracing a species. It is to be regretted that more reliable means are not at hand but until complete cultural studies are made this means of tracing species will continue to be important.

EXPLANATION OF TABLES

The following explanation of the tables is necessary: Figures in column I represent the number of the fungus

described in the Sylloge; the first number being that of the volume, the second that of the species in that volume. For instance, 3-110 refers to *Septoria* species 110 in volume 3 of the Sylloge. The second column presents the diameter of the pycnidia in microns. The third column gives the spore length, also in microns. This column is the key to the whole table, the "species" having been arranged first according to the minimum measurement, secondly according to the maximum. The fourth column gives the spore diameter in microns. In 5 and 6 the septa and guttulae, if present, are checked, if absent from the description the fact is indicated by a dash. If a definite number is present, figures giving the number of septa or guttulae are entered in the column. The sign ∞ means that the spores are multiseptate or guttulate. Continuous or entire spores are so indicated when the character is present in the description. Columns 7 and 8 representing curvature of the spore need no comment. The number in column 9 representing spore color correspond to the numbers given by Saccardo to different colors in his "Chromataxia." "A" here denotes hyalin spores. The significance of the remaining figures in this column may be determined by use of the following table:

| | | |
|---------------|-------|------------------------------|
| A—Achrous | ..... | hyalin |
| 2—Griseous | ..... | gray (smoky, cloudy.) |
| 4—Ater | ..... | dark, blackish |
| 22—Luteus | ..... | egg-yellow, golden-yellow |
| 23—Flavus | ..... | yellow |
| 30—Melleus | ..... | stone-colored, amber-colored |
| 35—Viridis | ..... | green |
| 39—Olivaceous | ..... | olive green |

Column 10 represents spore shape, the numbers corresponding to those found in the following list:

- 1—Linear, filiform, vermiform, flagelliform or acicular.
- 3—Oblong, cylindrical, bacillar, rod-shaped, allantoid or terete.
- 4—Fusoid or fusiform.
- 6—Clavate.
- 7—Irregular.
- 9— ∞

Column 11 is merely a list of the genera of hosts. Column 12 represents the families of hosts. The figures

corresponding to those given to the families of Siphonogams by Dalla Torre and Harms.³ The entire list is to be found in subsequent pages. Column 13 includes the localities. The countries have been omitted from the descriptions, in many cases there being only the name of some local town. An attempt has been made to supply the countries or nations as far as possible. Some of the species that have been quoted from a large number of countries in Europe have been entered in this column simply from Europe.

CONSIDERATION OF VARIOUS GROUPS OF SPECIES

The largest number of species from a single family is reported from the Compositae, but that is because that family is broader in its limits than most of the others. Somewhat recently authors have, in fact, divided the original Compositae into a number of separate families. Of the 118 species from this family, 54 are described from Italy and Central Europe, i. e. Germany, France, Portugal, Austria, etc. It will be noticed that in many cases species from a given country tend to group themselves together under similar spore lengths. In these groups other characters also correspond. For instance, if we trace in the tables the species from Compositae (280), beginning with spores 20-27 μ . in length, four species in succession occur from the United States. A fifth species from *Silphium* properly belongs in this group. Again, beginning with species having a spore length of 25 μ . we find three species from Italy, all with spore lengths between the limits of 25-30 μ .

Among the species on Gramineae, we find the same grouping by countries. It is a notable fact that many of the species here listed from the Gramineae are general parasites and are capable of affecting most grasses. Twenty-six of the species are included between the minimum spore lengths of 20-24 μ . while many others lap over into these limits. Septation is slightly more common than in the Septorias on Compositae, and there

³C. G. Dalla Torre et H. Harms, *Genera Siphonogamarum*.

seems to be a predominance of rod-shaped spores over other shapes.

Twenty-three of the fifty species from Leguminosae are rod-shaped, fourteen are filiform. It will also be noted that a large part of them are septate. The variation in spore length is great, and ranges from 10 to 120 μ .

Most of the species in the "Umbelliferae" group may be included within the limits of spore length of 25-50 μ , and it is probable that many of these are synonymous with *S. petroselinum*, var. *apii*, the common form on celery.

There is nothing of special importance connected with the species on Labiatae except that there is a general absence of septation.

Of the group from the Rosaceae, thirteen species have been described from *Prunus* alone. This amounts to 25% of the species from this family.

Species from the Caryophyllaceae present some interesting features. First, nearly all spores seem to be rod-shaped; second, there are few continuous spores.

In the group from Cruciferae, one group on *Sysimbrium* from Servia with a spore length of 19-62 μ . may be considered as including 16 of the 22 species from this family.

Nearly one-half of the species from the family Solanaceae are reported from *Solanum*.

Approaching the tables from the standpoint of morphology alone, there will be noted a general similarity between species with given spore lengths, as regards septation, spore shape, locality, etc. Thus on page 1 of the general tables, we see six species with spore lengths of 10-12 μ . all reported from Italy with the exception of one from France. The diameters of the spores are very similar and the septation is definite. All have rod-shaped spores and in all cases where the fact is mentioned the spores are curved. The largest groups of this kind are those with spore measurements lying between 20 and 25 μ . and 20 and 30 μ . Each of these contain over thirty species and probably include many identical forms.

The spores of nearly 700 species fall within the limits of 20 and 50 μ , and when we remember that few other characters are of constant diagnostic value it appears possible that with proper cultural studies a large number of *Septoria* species may be united. In Saccardo's *Sylloge* V. 22 a species is described (no. 4) having a spore length ranging from 19-62 μ . If this be a single species, which is entirely possible, then there appears to be no reason why the 700 species mentioned could not with proper methods of study be proven to belong to a small number of specific types. Such a wholesale elimination of species would probably not be acceptable to workers in this field, but it seems to be fully as warranted in the light of our knowledge to-day as the erection of myriads of species based largely on the host plant which they parasitize. It is to be hoped, however, that this tabulation will form a stepping stone to a more complete knowledge of the genus such as is obtained only by cultural and biological studies and that it will serve to attract the general student of pathology to this large and interesting genus, about which we know so little.

SPECIES OF SEPTORIA IN ORDER OF LENGTH OF SPORE

| Volume No. | Species No. | Diameter of Pycnidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Guttulae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
|------------|-------------|------------------------|-------------------|---------------------|------------------|---------------------|------------------|----------------|------------------|------------------|--------------|----------------|-----------------------------|
| 3-111 | 3-146 | ..... | 9 | ..... | 1 | ∞ | ..... | ..... | A | 1-3 | Andromeda | 233 | U. S. A. (Ala.) |
| 3-106 | 3-186 | ..... | 5-7 | 1.5-2.5 | 1 | ∞ | * | * | A | 1 | Unknown | ..... | N. Zealand. |
| 3-114 | ..... | ..... | 6-10 | ..... | 1-2 | ∞ | ..... | ..... | A | 4 | Jasminum | 243 | S. Africa, Cape of G. Hope. |
| 3-122 | 30 | ..... | 7-8 | 1-1.2 | C | ∞ | * | * | A | 3 | Asprella | 243 | France. |
| 3-254 | ..... | ..... | 7-8 | 1.5 | C | * | ..... | ..... | A | 3 | Olea | 243 | U. S. A. (Ind.) |
| 3-131 | ..... | ..... | 7-9 | 3.5-4.5 | 1-2 | ∞ | * | * | A | 3 | Speilaria | 87 | Germany. |
| 3-165 | ..... | ..... | 7-10 | 2-2.5 | 1-2 | ∞ | * | * | A | 3 | Palaowia | 257 | Italy and France. |
| 16-25 | 70-80 | ..... | 7-11 | 1.5 | C | ∞ | * | * | A | 3 | Tannus | 43 | France. |
| 10-61 | 80-150 | ..... | 7-12 | 1.5-2 | C | * | ..... | ..... | A | 3 | Acer | 163 | N. America. |
| 3-121 | ..... | ..... | 7-18 | 1-2 | 1 | ∞ | ..... | ..... | A | 1 | Salix | 56 | N. America. |
| 3-268 | ..... | ..... | 8 | ..... | 1 | ∞ | ..... | ..... | A | 1 | Chionanthus | 243 | U. S. A. (S. Car.). |
| 3-230 | ..... | ..... | 8-11 | 1.5 | 1 | ∞ | ..... | ..... | 2 | 3 | Mathiola | 105 | Portugal. |
| 3-578 | ..... | ..... | 8-12 | 2.5-3 | 1? | ∞ | ..... | ..... | A | 3 | Impatiens | 168 | Russia. |
| 3-570 | ..... | ..... | 8-14 | 2 | 3-5 | 5 | * | * | A | 3 | Juglans | 60 | Italy. |
| 3-14 | 80-90 | ..... | 8-15 | 3 | 3-5 | ∞ | * | * | A | 3 | Iris | 44 | Portugal. |
| 10-189 | 150-200 | ..... | 8-16 | 1.5-2 | C | ∞ | ..... | ..... | A | 1-6 | Citrus | 137 | Italy. |
| 14-54 | 80-90 | ..... | 9-11 | 1.5-2 | C | * | ..... | ..... | A | 3 | CoCos | 21 | U. S. A. (Mo.) |
| 10-218 | 84-86 | ..... | 9-11 | 1.5-2 | C | * | ..... | ..... | A | 3 | Armeria | 238 | Greenland. |
| 3-15 | ..... | ..... | 9-11 | 5-7.5 | 1 | ∞ | * | * | A | 3 | Triticum | 19 | Italy. |
| 3-180 | ..... | ..... | 9-14 | 2-3 | 1 | ∞ | * | * | A | 3 | Citrus | 137 | Canary Islands. |
| 10-141 | 80-90 | ..... | 9-23 | 3-3.5 | 1-3 | ∞ | * | * | A | 3 | Betula | 61 | Italy. |
| 3-535 | 80 | ..... | 10 | 3.5 | *? | ∞ | ..... | ..... | A | 4 | Ambrosia | 280 | Italy. |
| 3-555 | ..... | ..... | 10 | 2.5-3 | 1 | * | ..... | ..... | A | 4 | Rhynchospora | 20 | England and Belgium. |
| 3-164 | ..... | ..... | 10 | ..... | 1 | * | ..... | ..... | A | 4 | Yucca | 38 | England and Italy. |
| 3-146 | ..... | ..... | 10 | ..... | 1 | ∞ | ..... | ..... | A | 4 | Corylus | 61 | England and Italy. |
| 10-153 | 70-90 | ..... | 10 | 1.5-2 | C | ∞ | ..... | ..... | A | 1 | Artocarpus | 64 | India. |
| 3-487 | ..... | ..... | 10-12 | ..... | C | ∞ | * | * | A | 1 | Lanum | 254 | Italy. |
| 18-6 | 50-65 | ..... | 10-12 | 1.5 | C | ∞ | * | * | A | 3 | Agropyron | 19 | Italy. |
| 10-83 | ..... | ..... | 10-12 | 2 | *? | ∞ | * | * | A | 3 | Genista | 128 | Italy. |
| 16-4 | ..... | ..... | 10-12 | 2 | 2 | ∞ | * | * | A | 3 | Prasium | 254 | Italy. |
| 18-7 | ..... | ..... | 10-12 | 2 | *? | ∞ | * | * | A | 3 | Vitis | 170 | Italy. |
| 10-59 | ..... | ..... | 10-12 | 2-2.5 | C | ∞ | ..... | ..... | A | 3 | Kadsura | 45 | Italy. |
| 10-59 | ..... | ..... | 10-12 | ..... | C | ∞ | ..... | ..... | A | 3 | Populus | 56 | France. |

| Volume No. | Species No. | Diameter of Pycnidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Guttae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
|------------|-------------|------------------------|-------------------|---------------------|------------------|-------------------|------------------|----------------|------------------|------------------|---------------|----------------|----------------------------|
| 10-136 | 70-100 | 1.5 | 10-13 | 1-2 | — | — | — | * | A | 6 | Solidago | 280 | N. America. |
| 3-69 | ..... | 3 | 10-14 | 1-2 | — | — | — | * | A | 3 | Cydonia | 126 | Italy. |
| 3-13 | ..... | 2.5-3 | 10-14 | 1 | ∞ | ∞ | * | * | A | 4 | Citrus | 137 | Italy. |
| var. | ..... | 3-3.4 | 10-14 | 0 | ∞ | ∞ | * | * | A | 4 | Citrus | 137 | Italy. |
| 3-16 | 100-120 | 4-6 | 10-14 | 1 | ∞ | ∞ | * | * | A | 3 | Aphania | 165 | Africa (Erythraea). |
| 14-27 | ..... | ..... | 10-14 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 10-74 | 80-100 | 2-3 | 10-14 | 1 | — | — | * | * | A | 3 | Arabis | 105 | Germany. |
| 16-51 | ..... | 1-3 | 10-14 | 1-3 | — | — | ..... | ..... | ..... | 3 | Chaerophyllum | 228 | Greenland. |
| 3-113 | ..... | 1.2-2 | 10-15 | 1 | 2 | 2 | * | * | A | 3-6 | Bumelia | 239 | Italy. |
| 3-476 | ..... | 1.5 | 10-15 | 2-3 | ..... | ..... | * | * | A | ..... | Olea | 243 | Austria. |
| 3-472 | 60-70 | 1.3 | 10-15 | ..... | * | * | * | * | A | ..... | Catalpa | 258 | Italy. |
| 10-55 | ..... | 1.5 | 10-15 | C | ..... | ..... | * | * | A | 3 | Arbutus | 233 | Italy. |
| 3-295 | 50-70 | 1.1 | 10-18 | ..... | ..... | ..... | * | * | A | 3 | Delphinium | 91 | Portugal. |
| 11-3 | 55-85 | 2-3 | 10-16 | C | ..... | ..... | * | * | A | ..... | Lunaria | 105 | Canada. |
| 22-22 | 70-100 | 1.5 | 10-16 | ..... | 1-2 | 1-2 | * | * | A | 3 | Prunus | 128 | Silesia. |
| 3-38 | ..... | 1.5 | 10-20 | ..... | ..... | ..... | * | * | A | 3 | Rhamnus | 169 | Italy. |
| 3-35 | ..... | 3-4 | 10-20 | ..... | ..... | ..... | * | * | A | 1 | Rhamnus | 169 | Holland. |
| 16-33 | ..... | 2 | 10-20 | 1-3 | ..... | ..... | ..... | ..... | A | ..... | Silene | 87 | Palestine. |
| 14-30 | ..... | 2 | 10-20 | 1-C | ..... | ..... | ..... | ..... | A | 3 | Saxifraga | 117 | Greenland. |
| 16-66 | ..... | ..... | 10-20 | ..... | ..... | ..... | * | * | A | 3 | Maesa | 236 | Italy. |
| 14-18 | ..... | 1.5-2.5 | 10-20 | C-1 | ..... | ..... | * | * | A | ..... | Vitis | 70 | Tunis. |
| 14-19 | ..... | 1.5-2.5 | 10-20 | C | ..... | ..... | * | * | A | 3 | Sorbus | 125 | Germany. |
| 10-148 | ..... | 1.5-2 | 10-25 | ..... | ..... | ..... | * | * | A | ..... | Citrullus | 275 | U. S. A. (N. J.). |
| 22-156 | 90-180 | 3-4 | 10-35 | 1-3 | * | * | * | * | A | 3-6 | Pteris | ..... | Italy. |
| 10-197 | 70-80 | 1.5 | 11-13 | C. or | ..... | ..... | * | * | A | ..... | Carex | 38 | Fennia. |
| 16-16 | 120-200 | 3-3.5 | 11-15 | 1 | * | * | * | * | A | 3 | Aspidistra | 20 | Italy (Rome). |
| 22-151 | 70-130 | 2-2.5 | 11-18 | ..... | ..... | ..... | * | * | A | 3 | Citrus | 137 | Australia (Melbourne). |
| 22-120 | 40-90 | 2 | 11-20 | 1 | ..... | ..... | * | * | A | 4 | Oryzopsis | 19 | Turkey in Asia (Anatolia). |
| 3-503 | ..... | 2.3 | 12 | 1 | ..... | ..... | * | * | A | 4 | Mercurialis | 147 | Montenegro. |
| 3-480 | ..... | ..... | 12 | ..... | ..... | ..... | * | * | A | ..... | Poa | 19 | Holland. |
| 3-101 | ..... | 4 | 12 | 2 | ..... | ..... | * | * | A | ..... | Cucurbita | 275 | U. S. A. (Pa.) |
| 3-10 | ..... | 4 | 12 | 1 | ..... | ..... | * | * | A | ..... | Lonicera | 271 | Portugal. |
| ..... | ..... | ..... | 12 | ..... | ..... | ..... | * | * | A | 3 | Brachyichiton | ..... | ..... |

| Volume No. | Species No. | Diameter of Pyrenidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Guttulae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
|------------|-------------|-------------------------|-------------------|---------------------|------------------|---------------------|------------------|----------------|------------------|------------------|--------------|----------------|------------------------|
| 3-471 | 50-60 | 14 | 1.75 | 1-C. | 1 | * | .. | * | A | 3-4 | Asarum | 74 | Italy. |
| 16-49 | 70-80 | 14-15 | 2.5 | 1-C. | 1 | .. | .. | .. | A | 3 | Astilbe | 117 | Italy. |
| 16-37 | 150-160 | 14-16 | 2 | 1-C. | 1 | * | * | * | A | 3 | Bupleurum | 228 | Italy. |
| 16-43 | 105 | 14-16 | 1.3 | C-2-b | 1 | .. | .. | * | A | 1-4 | Chiffortia | 126 | Argentina. (Victoria). |
| 18-32 | 80-120 | 14-17 | 1.5 | 1? | 1 | .. | * | * | .. | 3 | Thelemyntia | 50 | Australia. (Victoria). |
| 22-11 | 100-120 | 14-18 | 2.3 | 0-1 | 1 | .. | .. | .. | .. | 3 | Zizyphus | 169 | Portugal. |
| 3-13 | 100-120 | 14-18 | 1.5-2.5 | 0-1 | 1 | .. | .. | .. | A | 3 | Citrus | 137 | Europe. |
| 3-120 | 100-120 | 14-18 | 3-6 | * | 1 | .. | .. | .. | A | 3 | Syringa | 243 | Italy, France. |
| 16-36 | 10-20 | 14-20 | 3.5-4.5 | C | 1 | .. | .. | .. | A | 3 | Chorizanema | 128 | Germany. |
| 3-345 | 80-120 | 14-20 | 1.7-1 | C | 1 | .. | .. | .. | A | 4 | Pentstemon | 257 | U. S. A. (Ill.). |
| 10-214 | 80-100 | 14-20 | 1.5-2 | 1-3 | 1 | .. | .. | .. | .. | 3 | Kennedyya | 19 | Fennia. |
| 22-155 | 120-150 | 14-22 | 1.5-2 | 1-3 | 1 | .. | .. | .. | A | 3 | Eriobotrya | 128 | Hungary. |
| 22-46 | 14-28 | 14-22 | 1 | 1-C. | 1 | .. | .. | .. | A | 3 | Homogyne | 280 | Italy. |
| 18-42 | 15 | 15 | 5 | 2-3 | 3 | * | * | * | A | 3 | Corynocarpus | 156 | Portugal. |
| 3-5 | 15 | 15 | 1 | 1 | 3 | .. | .. | .. | A | 1 | Zizyphus | 169 | Italy. |
| 3-44 | 15 | 15 | 1 | 1 | 3 | .. | .. | .. | A | 1 | Vaccinium | 233 | America. |
| 3-106 | 15 | 15 | 2 | 1 | 3 | .. | .. | .. | A | 1 | Symplocos | 224 | America. |
| 3-111 | 15 | 15 | 2 | 1 | 3 | .. | .. | .. | A | 3 | Jasminus | 243 | Italy. |
| 3-115 | 15 | 15 | 2.5 | 1 | 2 | .. | .. | .. | A | 4 | Phillyrea | 243 | Algeria. |
| 3-123 | 15 | 15 | 4 | 1 | 2 | .. | .. | .. | A | 4 | Solidago | 280 | U. S. A. (Car.). |
| 3-408 | 15 | 15 | 1.5 | 1 | 2 | .. | .. | .. | A | 3 | Aisma | 15 | Italy. |
| 3-542 | 15 | 15 | 1.5 | 1 | 2 | .. | .. | .. | A | 3 | Alice | 40 | Belgium. |
| 3-557 | 15 | 15 | 2.5 | 1 | 4 | .. | .. | .. | .. | 3 | Kalmia | 133 | France. |
| 11-54 | 15 | 15 | 3 | 1 | 4 | .. | .. | .. | A | 3 | Teucrium | 254 | Holland. |
| 14-46 | 15 | 15 | 4.5 | 1 | 4 | .. | .. | .. | A | 4 | Eryonimus | 158 | France. |
| 16-24 | 15-16 | 15-16 | 1.5 | 1 | 1 | .. | .. | .. | A | 4 | Quercus | 62 | Portugal. |
| 3-171 | 15-16 | 15-16 | 1.7-2 | 1 | 1 | .. | .. | .. | A | 4 | Rhamnus | 169 | France. |
| 3-37 | 130-140 | 15-16 | 2 | 1 | 1 | .. | .. | .. | A | 4 | Acacia | 128 | Australia. |
| varB | 14-56 | 15-16 | 2.5 | 1 | 4 | .. | .. | .. | A | 3 | Garrya | 229 | France. |
| 10-14 | 80-100 | 15-16 | 7-1 | C | 1 | .. | .. | .. | A | 3 | Orchis | 50 | Siberia. |
| 14-71 | 14-17 | 15-17 | 2 | 1 | 1 | .. | .. | .. | A | 4 | Vitis | 170 | France. |

| | | | | | | | | | | | |
|--------|---------|-------|---------|----------|-------|-------|-------|-------|--------------|------|---------------------------|
| 10-11 | 90-100 | 15-18 | 1.5 | — | 2 | ..... | A | ... | Hardenbergia | 128 | Australia (Norwood) |
| 10-190 | 80 | 15-18 | 1.5-1.7 | — | — | * | A | 3 | Latania | 21 | Italy (Rome) |
| 3-148 | ..... | 15-18 | ..... | — | — | ..... | A | 4 | Garrya | 229 | France |
| 3-526 | ..... | 15-18 | ..... | 0-1 | — | ..... | A | 4 | Scirpus | 20 | N. America |
| 3-540 | ..... | 15-18 | ..... | — | — | ..... | A | 3 | Alisma | 15 | Holland and Austria |
| 18-94 | 120-150 | 15-18 | 2.5-3 | — | 4 | * | ..... | 1-6 | Bromus | 19 | U. S. A. (Wisc.) |
| 3-272 | 65-75 | 15-20 | ..... | — | * | ..... | ..... | 1 | Polygala | 145 | U. S. A. (Mich.) |
| 3-261 | 60 | 15-20 | 2.3-5 | 1-3 | * | ..... | A | 3 | Armoracia | 105 | Italy |
| 3-226 | ..... | 15-20 | 1.2 | — | — | * | 2 | 3 | Cynaracium | 248 | U. S. A. (N. Y.) |
| 3-215 | ..... | 15-20 | 1.75 | C | — | * | ..... | 1 | Fragaria | 126 | U. S. A. (Ill.) |
| 3-76 | ..... | 15-20 | ..... | 0 | — | * | ..... | 3 | Prunus | 126 | France |
| 3-7 | 50-60 | 15-20 | 2-2.25 | C | — | * | A | 3 | Hibiscus | 175 | Italy |
| 3-248 | ..... | 15-20 | ..... | C | — | * | A | 3 | Dianthus | 85 | Italy, Portugal |
| 3-273 | 40-50 | 15-20 | 1-1.5 | C | — | * | A | 1-3 | Caparis | 107 | Italy, France |
| 3-303 | ..... | 15-20 | 1.5 | 1? | 10-15 | * | A | 3 | Paeonia | 91 | Belgium |
| 3-338 | 50-70 | 15-20 | 2-2.5 | — | 4-7 | * | ..... | 3 | Antirrhinum | 257 | France, Belgium, Portugal |
| 3-398 | ..... | 15-20 | .75 | C | — | * | A | 1 | Phyteuma | 271, | Italy |
| 3-470 | 40 | 15-20 | 1.7-2 | — | * | ..... | A | 3-6 | Aristolochia | 276 | Italy |
| 3-531 | 50 | 15-20 | 1.6 | — | — | ..... | ..... | 1 | Arisarum | 74 | Italy |
| 11-580 | 120-130 | 15-20 | 1.2 | C | — | ..... | ..... | 3 | Pimpinella | 23 | Algeria |
| 10-183 | ..... | 15-20 | 1.7 | — | — | ..... | A | 3 | Chenopodium | 126 | U. S. A. (Minn.) |
| 11-13 | 140-200 | 15-20 | 2-3 | — | * | ..... | 35 | ..... | Prunus | 78 | France, U. S. A. (Ohio) |
| 11-37 | 75-80 | 15-20 | 1.2-1.5 | — | * | ..... | A | 3 | Lepachys | 126 | Italy |
| 14-4 | ..... | 15-20 | 3-3.5 | — | ∞ | * | A | 3 | Matthiola | 280 | U. S. A. (Kan.) |
| 14-63 | 233-250 | 15-20 | 2.5-3 | C | — | * | A | 3 | Populus | 105 | France |
| 16-18 | ..... | 15-20 | 4-5 | — | 2-3 | * | A | 3 | Elaeodendrum | 56 | U. S. A. (Kan.) |
| 18-12 | 100-110 | 15-20 | .8-1 | C | — | ..... | ..... | 1 | Eryonymus | 158 | Germany (Berlin) |
| 18-53 | 60-90 | 15-20 | 2.5 | 3 | 0 | ..... | ..... | 3 | Halleria | 158 | U. S. A. (Del.) |
| 14-55 | ..... | 15-21 | 2.5-1 | * | * | ..... | A | 3 | Plantago | 267 | Portugal |
| 16-38 | ..... | 15-21 | ..... | * | ∞ | * | A | 3 | Tristiana | 269 | Greenland |
| 18-72 | 60-70 | 15-21 | 1.2-1.5 | *? | — | ..... | A | 3 | Complanata | 19 | Germany |
| 16-48 | 40-50 | 15-22 | ..... | C | — | ..... | A | 1 | Pimpinella | 79 | Spain |
| 11-24 | 75-80 | 15-22 | 1.5 | C | 0 | ..... | A | 1 | Mitella | 126 | Italy |
| 10-102 | ..... | 15-22 | ..... | — | — | ..... | A | 1 | Arcangelica | 117 | U. S. A. (Mich.) |
| 18-18 | ..... | 15-22 | 1-1.5 | 1-3 | — | * | A | 1-6 | Raua | 228 | Canada (London) |
| 16-94 | 30-60 | 15-24 | 2.5 | 1-3 or C | — | ..... | A | 3 | Sisyrinchium | 127 | Brazil |
| 3-80 | 100-150 | 15-25 | 1.5-2.2 | 1 | — | ..... | A | 3 | Calycanthus | 44 | Argentina (La Plata) |
| 3-130 | ..... | 15-25 | 1.5-2 | * | — | ..... | A | 1-6 | Nerium | 96 | Italy, Portugal, Austria |

| Volume No. | Species No. | Diameter of Pyrenidium | Length of Spores | Diameter of Spores | Number of Septa | Number of Guttulae | Spores straight | Spores curved | Color of Spores | Shape of Spores | Host Genus | Family Number | Locality |
|------------|-------------|------------------------|------------------|--------------------|-----------------|--------------------|-----------------|---------------|-----------------|-----------------|--------------|---------------|----------------------|
| 11-76 | 100-120 | 15-25 | 1.5-2 | — | — | * | .. | .. | A | 6 | Elymus | 19 | Canada. |
| 11-77 | 75 | 15-25 | 1.1-1.5 | — | — | * | .. | .. | A | 6 | Asropyron | 19 | U. S. A. (Wis.). |
| 11-78 | 75 | 15-25 | 1.1-1.5 | — | — | * | .. | .. | A | 6 | Lactuca | 280 | U. S. A. (Col.). |
| 11-43 | 75-80 | 15-25 | 1-1.5 | — | — | * | .. | .. | A | 3 | Solidago | 280 | N. Zealand. |
| 10-133 | ..... | 15-25 | 1-1.5 | — | — | * | .. | .. | A | 3 | Solidago | 280 | N. Zealand. |
| 10-83 | ..... | 15-25 | 1.5 | — | — | 4 | * | .. | A | 3 | Potentilla | 126 | France. |
| 10-169 | ..... | 15-25 | 1.5-2 | — | — | * | .. | .. | A | 3 | Phlox | 21 | N. America. |
| 11-58 | ..... | 15-25 | 1.5-2 | — | — | * | .. | .. | A | 3 | Rumex | 77 | U. S. A. (Minn.). |
| 15-46 | 75-105 | 15-25 | 1 | — | — | * | .. | .. | A | 3 | Galeobdolon | 254 | Germany (Thuringia). |
| 22-123 | 120-150 | 15-28 | 1.3 | 1-3 | — | * | .. | .. | A | 1 | Ficus | 64 | Java. |
| 18-64 | 70-150 | 15-29 | 1-1.5 | — | — | * | .. | .. | A | 1 | Gentiana | 248 | Bulgaria. |
| 3-98 | 80-90 | 15-30 | 1.7-3 | 3-4 | ∞ | * | .. | .. | A | 3-4 | Cornus | 229 | Italy. |
| 3-342 | 80-90 | 15-30 | 1-1.1 | C. | ∞ | * | .. | .. | A | 3-4 | Veronica | 257 | Argentina. |
| 10-25 | ..... | 15-30 | 1.5 | C. | — | * | .. | .. | A | 1 | Impatiens | 188 | U. S. A. (N. Y.). |
| 10-25 | ..... | 15-30 | 1.5 | 1-2 | — | * | .. | .. | A | 1 | Phaseolus | 128 | Brazil. |
| 22-22 | 60-100 | 15-30 | 1.5 | C. | — | * | .. | .. | A | 3 | Prunus | 126 | France. |
| 10-23 | ..... | 15-30 | 2.5-3 | C. | — | * | .. | .. | A | 3 | Acer | 163 | France. |
| 10-35 | ..... | 15-32 | 2 | 1-2 | — | * | .. | .. | A | 1 | Hypericum | 187 | Italy. |
| 22-12 | 60-150 | 15-38 | 2-2.5 | 1-3 | — | * | .. | .. | A | 1 | Alnus | 61 | Austria. |
| 18-73 | 45-90 | 15-40 | 1-2 | 1-3 | — | * | .. | .. | A | 1 | Dioscorea | 43 | Ecuador (Quito). |
| 11-66 | 60-100 | 15-40 | 1-1.5 | 1-3 | — | * | .. | .. | A | 1 | Symplocos | 242 | Brazil. |
| 14-53 | ..... | 15-40 | 6-8 | 2-3 | — | * | .. | .. | 2 | 6 | Vitis | 170 | Britain. |
| 3-226 | ..... | 16-18 | 4 | 1 | — | * | .. | .. | A | 4 | Olea | 243 | Portugal. |
| 3-126 | ..... | 16-18 | 3 | 1 | — | * | .. | .. | A | 4 | Rheum | 17 | Siberia. |
| 3-457 | ..... | 16-18 | 2.5-2 | C. | — | * | .. | .. | A | 3 | Pinus | 16 | Holland. |
| 10-65 | 50 | 16-18 | 2 | * | — | * | .. | .. | A | 3 | Schinus | 53 | Italy. |
| 16-19 | ..... | 16-18 | 2 | 1 | ∞ | * | .. | .. | A | 1 | Gomphocarpus | 248 | Italy. |
| 16-71 | ..... | 16-18 | 2 | 1 | ∞ | * | .. | .. | A | 1 | Oxyptalum | 248 | Italy. |
| 16-72 | 80-90 | 16-18 | 2 | ? or C. | * | * | .. | .. | A | 3 | Renealmia | 246 | Brazil. |
| 16-87 | 80-90 | 16-18 | 2 | ∞ | — | * | .. | .. | A | 1 | Crinum | 40 | Italy. |
| 16-91 | 60-80 | 16-18 | 1.5-2 | 1 | — | * | .. | .. | A | 1 | Soldanella | 273 | Switzerland. |
| 22-62 | ..... | 16-18 | 1 | 1 | — | * | .. | .. | A | 1 | Cerastium | 87 | Denmark. |
| 18-27 | 50-80 | 16-20 | 1-1.5 | 1-3 | — | * | .. | .. | A | 1 | Acalypha | 147 | Sicily. |
| 8-22 | ..... | 16-20 | 1.5 | 2-3 | — | * | .. | .. | A | 3 | Myriaceae | 161 | Brazil. |
| 10-26 | 70-80 | 16-20 | 2-2.5 | 1-2 | — | * | .. | .. | A | 3 | Magnolia | 45 | Germany. |
| 16-16 | ..... | 16-20 | 1-2 | 1-2 | — | * | .. | .. | A | 3 | Magnolia | 57 | Brazil. |

| Volume No. | Species No. | Diameter of Pycnidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Guttae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
|------------|-------------|------------------------|-------------------|---------------------|------------------|-------------------|------------------|----------------|------------------|------------------|-------------|----------------|-----------------------|
| 10-18 | 16-76 | 70-90 | 18-22 | 2.5-3 | 2-4 | — | ..... | * | A | 3 | Quercus | 62 | U. S. A. (S. Car.). |
| 18-32 | 22-44 | 90-198 | 18-22 | 1.5 | 2-4 | — | ..... | * | A | 3 | Ephedra | 7 | France. |
| 16-59 | 3-48 | 60-150 | 18-22 | 1.5-2 | 2-4 | — | ..... | * | A | 3 | Hebebus | 91 | France. |
| 22-87 | 3-878 | 50-100 | 18-22 | 1.1-1.5 | 2-4 | * | * | * | A | 3 | Feriploca | 248 | Hungary. |
| 18-38 | 3-194 | 90-100 | 18-24 | 1-1.5 | 2-4 | * | * | * | A | 1 | Polytrichum | 262 | "Femia." |
| 18-32 | 3-132 | 100 | 18-24 | 1-1.5 | 2-4 | * | * | * | A | 1 | Gentiana | 245 | No locality. |
| 3-34 | 3-60 | 60 | 18-24 | 1 | C. or * | * | ..... | * | A | 3 | Rhamnus | 169 | France. |
| 3-34 | 3-34 | 60 | 18-25 | 2 | C. or * | * | ..... | * | A | 3 | Juglans | 62 | France. |
| 18-47 | 10-63 | 200 | 18-25 | 1.5-2 | 2-4 | — | ..... | * | A | 3 | Fagus | 52 | Frugi Is. |
| 18-36 | 18-47 | 90-110 | 18-25 | 1-1.5 | 2-4 | — | ..... | * | A | 3 | Rubia | 270 | Portugal. |
| 11-33 | 11-33 | 100-120 | 18-25 | 1-1.5 | 2-4 | — | ..... | * | A | 3 | Vaccinium | 233 | Japan. |
| 18-32 | 18-32 | 100-120 | 18-25 | 2-3 | 2-4 | — | ..... | * | A | 3 | Aristolelia | 171 | Sicily. |
| 10-42 | 10-42 | 100-120 | 18-23 | 1-1.5 | 1-2 | 1-2 | ..... | * | A | 1 | Osmorrhiza | 228 | N. America. |
| 10-18 | 10-18 | 60-150 | 18-23 | 1-1.5 | 1-2 | 1-2 | ..... | * | A | 3 | Cardamine | 105 | Austria (Tirolia). |
| 18-32 | 18-32 | 60-150 | 18-29 | 1.5 | C? | — | ..... | * | A | 3 | Mikania | 280 | Brazil (Sao Paulo). |
| 16-59 | 16-59 | 50-100 | 18-30 | 1.5-2 | C? | — | ..... | * | A | 3 | Prunus | 126 | France. |
| 22-87 | 22-87 | 100-120 | 18-40 | 1.5-2 | C? | — | ..... | * | A | 1 | Smyrnium | 228 | Montenegro. |
| 18-38 | 18-38 | 80-100 | 18-40 | 1-1.5 | 1-2 | 1-2 | ..... | * | A | 1 | Campanula | 276 | Switzerland. |
| 18-32 | 18-32 | 60-150 | 18-45 | 1-1.5 | 1-2 | 1-2 | ..... | * | A | 1 | Carduus | 280 | Italy. |
| 18-32 | 18-32 | 60-150 | 19-21 | 2.5 | 1-2 | 1-2 | ..... | * | A | 1 | Luzula | 36 | Italy. |
| 18-38 | 18-38 | 80-100 | 19-24 | ..... | 1-2 | 1-2 | ..... | * | A | 1 | Lagenophora | 280 | Australia (Victoria). |
| 16-76 | 16-76 | 70-90 | 19-24 | 7-9 | 1-3 | — | ..... | * | A | 1 | Spigelia | 245 | Paraguay. |
| 22-44 | 22-44 | 90-198 | 19-62 | 2-3 | 1-3 | — | ..... | * | A | 3 | Sisymbrium | 105 | Servia. |
| 3-48 | 3-48 | 40-50 | 20 | ..... | 1-3 | — | ..... | * | A | 1 | Pistacia | 153 | France. |
| 3-878 | 3-878 | 40-50 | 20 | ..... | 3-7 | — | ..... | * | A | 1 | Gentiana | 246 | Italy. |
| 3-194 | 3-194 | ..... | 20 | ..... | ∞ | — | ..... | * | A | 3 | Acanthus | 266 | Portugal. |
| 3-132 | 3-132 | ..... | 20 | ..... | 7-9 | — | ..... | * | A | 3 | Medicago | 128 | Italy. |
| 3-32 | 3-32 | ..... | 20 | ..... | — | — | ..... | * | A | 1 | Alnus | 214 | Italy. |
| 3-34 | 3-34 | ..... | 20 | ..... | — | — | ..... | * | A | 4 | Euddeia | 245 | Netherlands. |
| 3-34 | 3-34 | ..... | 20 | ..... | — | — | ..... | * | A | 4 | Hedera | 170 | France. |
| 3-34 | 3-34 | ..... | 20 | ..... | 4-8 | — | ..... | * | A | 1 | Coronilla | 128 | Italy. |
| 3-136 | 3-136 | ..... | 20 | ..... | 4-8 | — | ..... | * | A | 1 | Rhamnus | 169 | Algeria. |
| 3-136 | 3-136 | ..... | 20 | ..... | 4-8 | — | ..... | * | A | 1 | Mahonia | 93 | Italy. |
| 3-136 | 3-136 | ..... | 20 | ..... | 2-4 | — | ..... | * | A | 6 | Daphne | 214 | France and Germany. |

| Volume No. | Species No. | Diameter of Fragidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Guttulae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
|------------|-------------|---------------------------|----------------------|------------------------|---------------------|------------------------|---------------------|-------------------|---------------------|---------------------|--------------|-------------------|------------------------|
| 3-278 | 80-90 | 2-2.5 | 20-25 | 1 | 1 | — | * | * | A | 3 | Eranthus | 91 | Italy. |
| 3-279 | 70-110 | 2-2.5 | 20-25 | 1-2 | 0 | — | * | * | A | 3 | Dianthus | 47 | Italy. |
| 3-281 | ..... | 2-2.5 | 20-25 | 2-5 | — | * | * | * | A | 3 | Spirea | 136 | Italy (Apennines). |
| 3-176 | 150 | 2 | 20-25 | 2 | — | — | * | * | 39 | 4 | Quercus | 26 | France. |
| 3-185 | ..... | 2-1.5 | 20-25 | 2-5 | 4 | 4 | * | * | A | 3-4 | Salix | 56 | Portugal. |
| 3-20 | ..... | 1.5-2 | 20-25 | — | — | — | * | * | A | 3-4 | Acer | 163 | Italy. |
| 3-37 | ..... | 2-2.5 | 20-25 | — | — | * | * | * | A | 3 | Rhamnus | 169 | Italy. |
| 3-40 | 70-80 | 2-2.5 | 20-25 | 1 | — | — | * | * | A | 3 | Rhamnus | 169 | Algeria. |
| 3-237 | ..... | 2-5-3 | 20-25 | 2-5-3 | — | — | * | * | A | 3 | Epilobium | 234 | Italy. |
| 3-42 | ..... | 1-1.5 | 20-25 | 1-5 | — | — | * | * | A | 1 | Evonymus | 153 | Germany and Italy. |
| 3-83 | ..... | 1.7-2 | 20-25 | 3-4 | — | — | * | * | A | 3 | Prunus | 126 | France and Italy. |
| 3-161 | ..... | 1.5 | 20-25 | 1-5 | — | — | * | * | A | 1 | Populus | 56 | Italy. |
| 3-193 | ..... | 2-3 | 20-25 | 3-5 | — | — | * | * | A | 3 | Trifolium | 123 | Italy. |
| 18-4 | ..... | 2-3 | 20-25 | 3 | — | — | * | * | A | 3-4 | Aisine | 87 | Denmark. |
| 10-12 | ..... | 1-1.5 | 20-25 | C? | — | — | * | * | A | 4 | Oxytropis | 128 | Norway. |
| 10-13 | ..... | 2-5-3 | 20-25 | C | — | — | * | * | A | 3 | Cercis | 128 | France. |
| 10-16 | ..... | 2-2-5 | 20-25 | C | — | — | * | * | A | 3 | Wisteria | 128 | France. |
| 10-41 | 200 | 1-1.5 | 20-25 | 1-3 | — | — | * | * | A | 3 | Cerastia | 123 | Italy. |
| 10-82 | ..... | 1-1.5 | 20-25 | 1-5 | — | — | * | * | A | 3 | Dryas | 95 | "Fuesi," Greenland. |
| 10-132 | 70-100 | 1.5-2 | 20-25 | 1-5 | — | — | * | * | A | 3 | Empetrum | 153 | Greenland. |
| 10-209 | 96-105 | 1-2.5 | 20-25 | 1 | — | — | * | * | A | 1 | Dianthus | 87 | Brazil. |
| 14-16 | ..... | 1-2.5 | 20-25 | 1 | — | — | * | * | A | 1 | Calla | 23 | Germany. |
| 22-147 | 75-90 | 2-2.5 | 20-25 | 2-2.5 | — | — | * | * | A | 3 | Phalaris | 19 | Italy. |
| 14-50 | 40-50 | 1-1.5 | 20-25 | 1 | — | — | * | * | A | 3 | Pittosporium | 118 | France. |
| 16-62 | 80 | 1-1.5 | 20-25 | 1 | — | — | * | * | A | 3 | Phalaris | 19 | Argentina. |
| 18-13 | 100-150 | 1.5-2 | 20-26 | C | — | — | * | * | A | 1 | Veronica | 257 | Italy. |
| 16-92 | 60-110 | 2.5-3.5 | 20-27 | C | — | — | * | * | A | 3-4 | Lobelia | 276 | Germany. |
| 16-44 | ..... | 1.5-1.75 | 20-27 | C | — | — | * | * | 33 | 3-4 | Evonymus | 158 | Portugal. |
| 10-223 | ..... | 1-1.2 | 20-27 | 1-1.2 | — | — | * | * | A-22 | 3-4 | Ruscus | 38 | Italy. |
| 10-175 | ..... | 1-1.2 | 20-27 | 1-1.2 | — | — | * | * | A-22 | 3-4 | Adenocaulon | 280 | U. S. A. (Idaho). |
| 16-70 | ..... | 1-1.2 | 20-28 | 1-3 | — | — | * | * | A | 3 | Equisetum | 254 | Penna. |
|  | ..... | 1-1.2 | 20-28 | 1-3 | — | — | * | * | A | 3 | Physostegia | 254 | U. S. A. (Wisc.) |
|  | ..... | 1-1.2 | 20-28 | 1-3 | — | — | * | * | A | 3 | Asclepias | 248 | S. Africa. |

| | | | | | | | | | | | |
|--------|---------|----------|-------|---------|-------|-----|-------|-----|--------------|-----|---------------------------|
| 10-187 | 60-70 | 20-28 | ..... | 1.5 | ..... | 1 | A | 1 | Boehmeria | 65 | U. S. A. (Mo.) |
| 18-451 | 45-80 | 20-28 | ..... | 1.2 | ..... | 1 | ..... | 1 | Plantago | 269 | Northern Italy. |
| 3-242 | 45-80 | 20-28, 5 | ..... | 1.2 | ..... | 1 | ..... | 1 | Cyclamen | 237 | Switzerland. |
| 3-369 | 20-30 | 20-30 | ..... | 2 | ..... | 3 | A | 3 | Dianthus | 254 | Belgium. |
| 3-137 | 83-100 | 20-30 | ..... | 2 | ..... | 3 | A | 3 | Melilotus | 254 | Italy. |
| 3-224 | 100-300 | 20-30 | ..... | 2.5-3 | ..... | 3 | A | 3 | Elaeagnus | 215 | Italy (Venice). |
| 3-274 | 100-300 | 20-30 | ..... | 1.5 | ..... | 1 | A | 1 | Jussiaea | 224 | Europe |
| 3-314 | 120-150 | 20-30 | ..... | 7-1 | ..... | 1 | A | 1 | Chelidonium | 104 | Italy and U. S. A. |
| 3-335 | 70-80 | 20-30 | ..... | 1 | ..... | 1 | A | 1 | Pastinaca | 228 | (N. Y.) |
| 3-510 | ..... | 20-30 | ..... | 1.5-2 | ..... | 3 | A | 3 | Soldanella | 237 | Northern Italy. |
| 3-505 | ..... | 20-30 | ..... | 3-4 | ..... | 3 | A | 3 | Phragmites | 19 | Northern Italy. |
| 16-77 | 60-80 | 20-30 | ..... | 1 | ..... | 1 | A | 1 | Molinia | 19 | Northern Italy. |
| 14-28 | ..... | 20-30 | ..... | 1.5-2 | ..... | 3 | A | 3 | Asarum | 74 | Germany |
| 11-61 | 11-61 | 20-30 | ..... | 3 | ..... | 3 | A | 3 | Falcaria | 238 | (Bavaria). |
| 11-52 | 200-250 | 20-30 | ..... | 2.5 | ..... | 3 | A | 3 | Celtis | 96 | France. |
| 11-45 | 100-110 | 20-30 | ..... | 1.5-2 | ..... | 3 | A | 3 | Fraxinus | 233 | U. S. A. (Del.) |
| 11-16 | 60-60 | 20-30 | ..... | 1.5 | ..... | 3 | A | 3 | Solanum | 256 | U. S. A. (Ind.) |
| 10-207 | ..... | 20-30 | ..... | 1.5 | ..... | 3 | A | 3 | Eugenia | 222 | U. S. A. (Cal.) |
| 10-186 | ..... | 20-30 | ..... | ..... | ..... | 4 | A | 4 | Carex | 20 | America. |
| 10-124 | ..... | 20-30 | ..... | 1.5 | ..... | 1 | A | 1 | Cannabis | 20 | Canada (London). |
| 10-73 | ..... | 20-30 | ..... | ..... | ..... | 1 | A | 1 | Erechtitis | 64 | America. |
| 10-33 | ..... | 20-30 | ..... | 1 | ..... | 1 | A | 1 | Dentaria | 280 | U. S. A. (Del.) |
| 10-77 | ..... | 20-30 | ..... | 1.2 | ..... | 3 | A | 3 | Aesculus | 105 | U. S. A. (N. Y.) |
| 10-104 | 100-120 | 20-30 | ..... | 1.2-1.5 | ..... | 1 | A | 1 | Lathyrus | 128 | Germany |
| 10-211 | 70-80 | 20-30 | ..... | 1-1.3 | ..... | 1 | A | 1 | Cryptotaenia | 228 | U. S. A. (N. J.) |
| 11-14 | 75-85 | 20-30 | ..... | 2 | ..... | 1 | A | 1 | Trisetum | 19 | U. S. A. (Pa. and Del.) |
| 14-62 | ..... | 20-30 | ..... | ..... | ..... | 3 | A | 3 | Prunus | 126 | Staten and Fuegi Islands. |
| 18-37 | 75-80 | 20-30 | ..... | 2 | ..... | 1 | A | 1 | Ulmus | 63 | N. America. |
| 18-60 | 70-90 | 20-30 | ..... | 1.3-1.5 | ..... | 1 | A | 1 | Liatris | 280 | U. S. A. (Cal.) |
| 18-67 | 60-70 | 20-30 | ..... | 1.5-1 | ..... | 1 | A | 1 | Solanum | 256 | U. S. A. (Wisc.) |
| 22-36 | 60-100 | 20-30 | ..... | 2-2.5 | ..... | 3 | A | 3 | Gomphocarpus | 248 | Stely. |
| 22-31 | 45-90 | 20-31 | ..... | 1.5-2 | ..... | 1 | A | 1 | Potentilla | 126 | Australia. |
| 18-83 | ..... | 20-32 | ..... | 2.6-3.2 | ..... | 1 | A | 1 | Silene | 87 | Bombaya. |
| 22-112 | 60-150 | 20-32 | ..... | ..... | ..... | 3 | A | 3 | Listeria | 270 | Montenegro. |
| 3-331 | 120-166 | 20-34 | ..... | 1.5 | ..... | 1 | A | 1 | Asclepias | 50 | Italy. |
| 3-340 | 50-60 | 20-35 | ..... | 1.5 | ..... | 3-4 | A | 3-4 | Viscum | 243 | Bohemia. |
| 10-40 | 70 | 20-35 | ..... | 2.5-3 | ..... | 1 | A | 1 | Linaria | 67 | No locality. |
| 10-118 | 100 | 20-35 | ..... | 1.5-2 | ..... | 1 | A-23 | 1 | Iva | 257 | Italy. |
| 11-32 | 75 | 20-35 | ..... | ..... | ..... | 1 | A | 1 | Helianthus | 250 | U. S. A. (Kan.) |
| 11-51 | ..... | 20-35 | ..... | 1.5-2 | ..... | 1 | A | 1 | Oenanthe | 284 | U. S. A. (Wisc.) |
| ..... | ..... | 20-35 | ..... | 2.5-3 | ..... | 1 | A | 1 | Elaeagnus | 223 | U. S. A. (Wash.) |
| ..... | ..... | 20-35 | ..... | ..... | ..... | 1 | A | 1 | ..... | 215 | France. |

| Volume No. | Species No. | Diameter of Pycnidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Guttae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
|------------|-------------|------------------------|-------------------|---------------------|------------------|-------------------|------------------|----------------|------------------|------------------|-------------|--------------------|-----------|
| 16-11 | 300-500 | 3-4 | 3-5 | 3-5 | 8 | * | A | A | 4 | Cereus | 210 | Germany. | |
| 16-85 | 20-25 | 3-4 | 3-5 | 3-5 | 8 | * | A | A | 4 | Codonorchis | 59 | Chile. | |
| 16-63 | 20-25 | 5-8 | 5-8 | 5-8 | 8 | * | A | A | 1 | Lysimichia | 237 | Japan. | |
| 8-299 | 50 | 2 | 2 | 2 | 8 | * | A | A | 1 | Podophyllum | 98 | U. S. A. (Ill.). | |
| 22-37 | 70-100 | 1 | 1 | 1 | 8 | * | A | A | 1 | Keria | 126 | Japan. | |
| 8-559 | 20-40 | 2-7 | 2-7 | 2-7 | 4 | * | A | A | 1 | Trillium | 38 | U. S. A. (Ill.). | |
| 8-221 | 20-40 | 2-7 | 2-7 | 2-7 | 4 | * | A | A | 1 | Typhium | 216 | U. S. A. (Ill.). | |
| 8-567 | 20-40 | 2-7 | 2-7 | 2-7 | 4 | * | A | A | 3 | Smilax | 38 | N. America. | |
| 10-107 | 60-90 | 1 | 1 | 1 | 3 | * | A | A | 1 | Chrysosplenium | 117 | Portugal. | |
| 10-44 | 20-40 | 2 | 2 | 2 | 3 | * | A | A | 3 | Symphoricarpos | 271 | Hungary. | |
| 10-81 | 70-90 | 1-3 | 1-3 | 1-3 | 3 | * | A | A | 1 | Cassia | 128 | U. S. A. (Dakota). | |
| 10-127 | 20-40 | 3 | 3 | 3 | 3 | * | A | A | 3 | Senecio | 280 | U. S. A. (Kan.). | |
| 11-4 | 65-75 | 1-1.3 | 1-1.3 | 1-1.3 | * | * | A | A | ... | Viola | 198 | (Victoria). | |
| 14-7 | 10-60 | 1 | 1 | 1 | * | * | A | A | ... | Helianthemum | 193 | N. America. | |
| 14-37 | 100-110 | 1.2-1.5 | 1.2-1.5 | 1.2-1.5 | * | * | A | A | ... | Silphium | 280 | Sweden. | |
| 14-45 | 20-40 | 1-2 | 1-2 | 1-2 | * | * | A | A | ... | Clinopodium | 254 | U. S. A. (Kan.). | |
| 14-42 | 20-40 | 1.5-2 | 1.5-2 | 1.5-2 | * | * | A | A | ... | Asclepias | 248 | Germany (Bav.). | |
| 18-33 | 50-80 | 1-1.5 | 1-1.5 | 1-1.5 | 0 | * | A | A | ... | Sedum | 228 | U. S. A. (Kan.). | |
| 22-29 | 20-40 | 1-1.5 | 1-1.5 | 1-1.5 | 1 | * | A | A | ... | Heracleum | 228 | Montenegro. | |
| 22-51 | 60-80 | 2-3 | 2-3 | 2-3 | 1 | * | A | A | ... | Humulus | 64 | N. America. | |
| 22-91 | 50-75 | 2 | 2 | 2 | 1 | * | A | A | ... | Lathyrus | 280 | Austria. | |
| 18-71 | 60-120 | 2.5-3 | 2.5-3 | 2.5-3 | 1 | * | A-4 | A-4 | ... | Rhus | 153 | Chile. | |
| 22-41 | 90-170 | 5-6 | 5-6 | 5-6 | 1 | * | A-33 | A-33 | ... | Panicum | 19 | Bohemia. | |
| 11-22 | 20-50 | 5-6 | 5-6 | 5-6 | 1 | * | A | A | ... | Oryza | 19 | Montenegro. | |
| 22-145 | 80-150 | 3 | 3 | 3 | 1 | * | A | A | ... | Gonolobus | 158 | Africa. | |
| 3-496 | 60 | 3.5 | 3.5 | 3.5 | 1 | * | A | A | ... | Maytenus | 60 | (Erythria). | |
| 16-73 | 170-200 | 4.5 | 4.5 | 4.5 | 2-3 | * | A | A | ... | Juglans | 175 | Argentina. | |
| 10-39 | 22-25 | 1-1.5 | 1-1.5 | 1-1.5 | 1 | * | A | A | ... | Hibiscus | 175 | N. Italy. | |
| 3-477 | 22-25 | 4.5 | 4.5 | 4.5 | 1 | * | A | A | ... | Arbutus | 283 | Germany. | |
| 10-31 | 140 | 1.7 | 1.7 | 1.7 | 1 | * | A | A | ... | Salix | 566 | S. America | |
| 18-157 | 22-25 | 1.5-2 | 1.5-2 | 1.5-2 | 1 | * | A | A | ... | Pilea | 65 | (Cape Horn). | |
| 3-469 | 22-28 | 1.5-2 | 1.5-2 | 1.5-2 | 1 | * | A | A | ... | Pilea | 65 | Austria, Italy. | |

| | | | | | | | | |
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| 16-78 | 88-100 | 22-30 | 1.5-2.5 | 3 | C | 1.5-2.5 | 22-30 | 16-78 |
| 22-79 | 40-60 | 22-30 | 8-1 | 3 | C | 8-1 | 22-30 | 22-79 |
| 14-47 | | 22-30 | 1-1.5 | 3 | C | 1-1.5 | 22-30 | 14-47 |
| 22-82 | 90-130 | 22-30 | | 3 | C | | 22-30 | 22-82 |
| 22-83 | 55-120 | 22-31 | 1-2 | 3 | C | 1-2 | 22-31 | 22-83 |
| 10-103 | | 22-35 | 1.5 | 3 | C | 1.5 | 22-35 | 10-103 |
| 10-146 | | 22-45 | 1.5-2 | C | C | 1.5-2 | 22-45 | 10-146 |
| 16-12 | 100-120 | 22-60 | 4-5 | 3 | C | 4-5 | 22-60 | 16-12 |
| 18-55 | 200-230 | 22-60 | | 3 | C | | 22-60 | 18-55 |
| | X180-220 | 23-25 | 2-3 | | | 2-3 | 23-25 | |
| 10-62 | | 23-38 | 4-5 | 1 | C | 4-5 | 23-38 | 10-62 |
| 16-58 | | 23-38 | 4-5 | 1 | C | 4-5 | 23-38 | 16-58 |
| 3-259 | | 24 | 7-8 | 1-2 | C | 7-8 | 24 | 3-259 |
| 3-572 | | 24-26 | 3 | 1-2 | C | 3 | 24-26 | 3-572 |
| 3-441 | | 24-26 | 1.5-2 | 1-2 | C | 1.5-2 | 24-26 | 3-441 |
| 22-115 | | 24-28 | 1-2 | 1 | C | 1-2 | 24-28 | 22-115 |
| 3-579 | | 24-28 | 1.5-2 | 1 | C | 1.5-2 | 24-28 | 3-579 |
| 10-71 | | 24-28 | 1 | 1 | C | 1 | 24-28 | 10-71 |
| 18-10 | | 24-28 | 3-4 | 1 | C | 3-4 | 24-28 | 18-10 |
| 3-355 | | 24-30 | 2 | 1-2 | C | 2 | 24-30 | 3-355 |
| 3-815 | | 24-30 | 2 | 1-2 | C | 2 | 24-30 | 3-815 |
| 3-112 | 112 | 24-30 | 3 | 2-3 | C | 3 | 24-30 | 3-112 |
| 3-438 | | 24-30 | 2 | 1-2 | C | 2 | 24-30 | 3-438 |
| 10-123 | | 24-30 | 2 | 1-2 | C | 2 | 24-30 | 10-123 |
| 10-100 | | 24-30 | 2 | 1-2 | C | 2 | 24-30 | 10-100 |
| 11-205 | | 24-30 | 2 | 1-2 | C | 2 | 24-30 | 11-205 |
| 11-41 | | 24-30 | 2-5 | 3 | C | 2-5 | 24-30 | 11-41 |
| 11-94 | 80-100 | 24-30 | 2-3 | 3 | C | 2-3 | 24-30 | 11-94 |
| 22-10 | 90-120 | 24-32 | 1-5 | C | C | 1-5 | 24-32 | 22-10 |
| 16-54 | 80-100 | 24-32 | 1-5 | C | C | 1-5 | 24-32 | 16-54 |
| 10-132 | 90-100 | 24-32 | 2-5 | 1-2 | C | 2-5 | 24-32 | 10-132 |
| 3-263 | 74 | 24-33 | 2-5-3 | 1-2 | C | 2-5-3 | 24-33 | 3-263 |
| 3-269 | | 24-34 | 2.5 | 1-3 | C | 2.5 | 24-34 | 3-269 |
| 22-8 | 40-50 | 24-36 | 1.5-2 | 1-3 | C | 1.5-2 | 24-36 | 22-8 |
| 22-104 | 60-70 | 24-38 | 1-1.5 | 1-3 | C | 1-1.5 | 24-38 | 22-104 |
| 22-100 | 60-80 | 24-45 | 1.5-2 | 1-3 | C | 1.5-2 | 24-45 | 22-100 |
| 22-5 | 80-120 | 24-52 | 2.5-4.5 | 1-3 | C | 2.5-4.5 | 24-52 | 22-5 |
| 3-364 | | 25 | | 1 | C | | 25 | 3-364 |
| 3-216 | | 25 | | 1 | C | | 25 | 3-216 |
| 3-108 | | 25 | 1.5 | 1 | C | 1.5 | 25 | 3-108 |
| 3-168 | | 25 | | 1 | C | | 25 | 3-168 |
| 3-270 | | 25 | | 1 | C | | 25 | 3-270 |

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| Achyranthes | 79 | Sicily. |
| Calamintha | 254 | Italy. |
| Coffea | 270 | Kammarum. |
| Centaurea | 280 | N. Italy. |
| Alsiue | 87 | Bulgaria. |
| Campanula | 276 | Scotland. |
| Centranthus | 273 | France. |
| Philadelphus | 117 | U. S. A. (Idaho). |
| Olea | 243 | Italy. |
| Salix | 56 | France. |
| Convulvulus | 249 | Holland. |
| Viola | 198 | Germany. |
| Gnadenia | 50 | Siberia in Asia. |
| Aetherrhiza | 280 | Portugal. |
| Atropa | 69 | Argentina. |
| Scotopendrium | ... | Italy. |
| Trientalis | 237 | Germany. |
| Opuntia | 210 | Northern Italy. |
| Polemonium | 250 | Siberia in Asia. |
| Bupleurum | 228 | Asia. |
| Symplocos | 241 | N. America. |
| Cichorium | 280 | Italy. |
| Buphthalmum | 280 | Bavaria. |
| Carex | 20 | Tibet. |
| Buphthalmum | 280 | Bavaria. |
| Ficus | 64 | Italy. |
| Polygala | 145 | Hungary. |
| Origanum | 254 | Germany (Saxony). |
| Rumex | 77 | Norway. |
| Lepidium | 105 | U. S. A. (Pa.) |
| Erysimum | 105 | Austria |
| Capsella | 105 | (Moravia). |
| Melampyrum | 257 | Hungary. |
| Scrophularia | 257 | Austria. |
| Erysimum | 105 | Montenegro. |
| | | Austria |
| | | (Bohemia). |
| Malva and Plantago | 269 & 75 | Italy, Belgium, Britain |
| Waldestinia | ... | N. America. |
| Arbutus | 233 | Europe. |
| Castanea | 62 | U. S. A. (N. Eng.). |
| Cheiranthus | 105 | France, Italy. |

| Volume No. | Species No. | Diameter of Pycnidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Gutulae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
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| 3-300 | | | 25 | | | | * | | | 1 | Coptis | 91 | U. S. A. (Wisc.). |
| 3-2 | | | 25 | | | | * | | | 1 | Magnolia | 238 | U. S. A. (S. Car.). |
| 3-18 | | 70 | 1.25 | | | 2 | * | | A | 1 | Aescopium | 276 | U. S. A. (S. Car.). |
| 3-395 | | | 25 | ..... | ..... | ..... | * | ..... | ..... | 1 | Specularia | 289 | U. S. A. (S. Car.). |
| 3-410 | | | 25 | ..... | ..... | ..... | * | ..... | ..... | 1 | Erigeron | 345 | N. America. |
| 22-14 | | 65-80 | 1 | ..... | ..... | ..... | * | ..... | ..... | 3 | Drimys | 280 | Brazil. |
| 3-435 | | 80-100 | 1-1.2 | ..... | ..... | 4-5 | * | ..... | ..... | 1 | Lappa | 77 | Northern Italy. |
| 3-450 | | | 25 | ..... | ..... | ..... | * | ..... | ..... | 3 | Polygonum | 19 | Europe and America. |
| 3-492 | | | 25 | 2.5 | ..... | * | * | ..... | A | 3-4-6 | Leersia | 45 | Northern Italy. |
| 3-190 | | | 25 | ..... | ..... | ..... | * | ..... | ..... | 1 | No host | 45 | U. S. A. (S. Car.). |
| 3-46 | | | 25 | ..... | ..... | ..... | * | ..... | ..... | 1 | Ilex | 243 | N. America. |
| 3-116 | | 100 | 3 | ..... | ..... | ..... | * | ..... | A-39 | 3-4 | Fraxinus | 87 | Portugal. |
| 10-89 | | | 21 | ..... | ..... | ..... | * | ..... | 33 | 3-4 | Sagina | 39 | Greenland. |
| 10-196 | | | 22 | 1.5-2 | ..... | ..... | * | ..... | A | 3-4 | Ophiopogon | 229 | Italy. |
| 11-64 | | | 22 | 1.7-2 | ..... | ..... | * | ..... | A | ..... | Jarva | 187 | France. |
| 18-8 | | | 22 | 2.5 | ..... | * | * | ..... | A | 1 | Hypericum | 228 | Italy. |
| 3-312 | | 80-85 | 25-26 | 1.5 | ..... | ..... | * | ..... | A | 1 | Peucedanum | 1 | Germany, Austria. |
| 14-65 | | 110-190 | 25-28 | 2-2.5 | ..... | ..... | * | ..... | A | 3 | Cycas | 56 | Italy. |
| 3-160 | | | 25-28 | 2.5 | ..... | ..... | * | ..... | A | 3 | Populus | 128 | Italy. |
| 3-56 | | | 25-28 | 2.2 | ..... | ..... | * | ..... | A | 3 | Robinia | 256 | Argentina. |
| 3-90 | | 90-100 | 25-30 | 1-1.5 | ..... | ..... | * | ..... | A | 1-3 | Jaborosa | 45 | U. S. A. (Texas). |
| 3-1 | | | 25-30 | ..... | ..... | ..... | * | ..... | ..... | 3 | Magnolia | 271 | Northern Italy. |
| 3-103 | | 100-200 | 25-30 | 3-4 | ..... | 2-4 | * | ..... | ..... | 3 | Leycesteria | 91 | Northern Italy. |
| 3-377 | | | 25-30 | ..... | ..... | ..... | * | ..... | ..... | 3 | Hepatica | 237 | Italy. |
| 3-356 | | | 25-30 | ..... | ..... | ..... | * | ..... | ..... | 3 | Cyclamen | 280 | Northern Italy. |
| 3-424 | | | 25-30 | ..... | ..... | ..... | * | ..... | ..... | 1 | Leucanthemum | 280 | Northern Italy. |
| 3-437 | | | 25-30 | ..... | ..... | ..... | * | ..... | ..... | 1 | Cichorium | 280 | Northern Italy. |
| 3-439 | | 90 | 25-30 | 1.7-2 | ..... | ..... | * | ..... | A | 3 | Lactuca | 280 | U. S. A. (Ill.). |
| 3-440 | | | 25-30 | ..... | ..... | ..... | * | ..... | A | 3 | Lactuca | 280 | U. S. A. (Ill.). |
| 3-501 | | 200 | 25-30 | 2-2.5 | ..... | ..... | * | ..... | A | 3-6 | Bromus | 19 | Italy (Montella). |
| 3-528 | | | 25-30 | 5 | ..... | ..... | * | ..... | A | 3 | Scirpus | 20 | Northern Italy. |
| 3-553 | | | 25-30 | ..... | ..... | ..... | * | ..... | ..... | 1 | Allium | 38 | N. America. |
| 3-347 | | | 25-30 | 1.5 | | | * | | | 1 | Digitalis | 257 | Northern Italy. |
| 3-11 | | | 25-30 | 1.5 | | | * | | A | 1 | Fraxinus | 243 | Italy. |

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| 3-173 | | 25-30 | 3-4 | 3 | — | | * | A | 3 | 3 | Quercus | 62 | France, Italy, Austria. |
| 3-293 | 70-80 | 25-30 | .5-8 | C | *? | | * | | 1 | 1 | Aquillegia | 91 | No locality. |
| 3-309 | 70-80 | 25-30 | 1 | 1? | * | ..... | * | A | 3-6 | 3-6 | Trianosperma | 275 | Argentina. |
| 10-70 | 60-80 | 25-30 | 1 | — | * | ..... | * | A | 3 | 3 | Anthyllis | 39 | Sardinia. |
| 10-68 | 60-80 | 25-30 | 1 | — | * | ..... | * | A | 1 | 1 | Aguilegia | 31 | U. S. A. (Ohio). |
| 10-79 | 70-80 | 25-30 | 1.5-4 | 5 | * | ..... | * | ..... | 3 | 3 | Canvalia | 280 | Guisana. |
| 10-117 | ..... | 25-30 | 1.5-2 | — | * | ..... | * | ..... | 3 | 3 | Helenium | 289 | U. S. A. (Wisc.). |
| 14-1 | 60 | 25-30 | 1.5-2 | — | ∞? | ..... | * | A | 3 | 3 | Paeonia | 31 | Germany. |
| 18-58 | 50-80 | 25-30 | 1.5-2 | C | * | ..... | * | A | 1 | 1 | Cornum | 228 | Germany. |
| 22-117 | 80-110 | 25-30 | 1-1.2 | 1-C | * | ..... | * | A | 1 | 1 | Lichium | 256 | Argentina. |
| 22-7 | ..... | 25-32 | 1-1.3 | — | * | ..... | * | A | 1-3 | 1-3 | Loranthus | 67 | Argentina. |
| 22-18 | 50-80 | 25-32 | 1 | C | — | ..... | * | A | 3 | 3 | Cardamine | 105 | Austria. |
| 3-512 | ..... | 25-35 | 2-2.5 | C | — | ..... | * | A | 4 | 4 | Cerastium | 87 | Austria. |
| 3-296 | 100-120 | 25-35 | 1.5-2 | ∞ | — | ..... | * | A | 1 | 1 | Arundo | 19 | Italy, France, Portugal. |
| 3-280 | 70-80 | 25-35 | 1-1.2 | C | — | ..... | * | A | 1 | 1 | Aconitum | 91 | Northern Italy. |
| 3-261 | ..... | 25-35 | 1-2 | — | * | ..... | * | A | 1 | 1 | Ficaria | 91 | Northern Europe. |
| 3-406 | ..... | 25-35 | 1.5 | — | *? | ..... | * | A | 1 | 1 | Levandula | 254 | Europe. |
| 32-461 | 110 | 25-35 | 4.5-5 | 1-5 | 2-5 | ..... | * | A | 4 | 4 | Eupatorium | 280 | France, Italy. |
| 3-467 | 50-60 | 25-35 | 1 | — | * | ..... | * | A | 3 | 3 | Atriplex | 78 | Europe, America. |
| 22-70 | 70-75 | 25-35 | 1 | — | * | ..... | * | ..... | 1 | 1 | Humulus | 64 | Italy, Belgium, Siberia. |
| 22-59 | 80-100 | 25-35 | 1.5-2 | C | — | ..... | * | ..... | 1 | 1 | Convolvulus | 249 | Argentina. |
| 22-43 | 50-70 | 25-35 | 1 | C | — | ..... | * | A | 1 | 1 | Seselum | 228 | Hungary. |
| 16-55 | 100-110 | 25-35 | 1-1.5 | 3 | — | ..... | * | ..... | 1 | 1 | Vigna | 128 | Africa (Congo). |
| 16-40 | 60-70 | 25-35 | 2.5-3 | C | * | ..... | * | ..... | 4 | 4 | Ballota | 254 | Italy. |
| 14-4 | ..... | 25-35 | 1 | 3 | ∞ | ..... | * | A | 1 | 1 | Anenome | 91 | U. S. A. (Mont.). |
| 14-11 | ..... | 25-35 | 2 | ∞ | — | ..... | * | ..... | 1 | 1 | Crepis | 280 | Sweden. |
| 10-217 | ..... | 25-35 | .75 | 1-3 | — | ..... | * | A | 1 | 1 | Jussiaea | 126 | U. S. A. (Ala.). |
| 10-145 | ..... | 25-35 | 1.5-4 | 3 | — | ..... | * | ..... | 1 | 1 | Agropyron | 19 | Italy. |
| 10-96 | 70-80 | 25-35 | 1 | — | * | ..... | * | A-23 | 1 | 1 | Pyrola | 233 | N. America. |
| 22-96 | ..... | 25-35 | 2-2.5 | — | * | ..... | * | 35 | 1 | 1 | Polemonium | 250 | N. America. |
| 22-131 | 100-150 | 25-38 | 2.5-3 | 1-2 | — | ..... | * | ..... | 1 | 1 | Diervilla | 271 | N. America. |
| 3-209 | ..... | 25-38 | 2.5-3 | — | — | ..... | * | ..... | 1 | 1 | Hyosceris | 280 | N. America. |
| 3-271 | 80-100 | 25-40 | 1.5-2 | C | — | ..... | * | A | 3 | 3 | Cornus | 229 | N. America. |
| 16-64 | 50-60 | 25-40 | 1.5-1.75 | — | — | ..... | * | ..... | 1 | 1 | Polygonatum | 77 | Bohemia. |
| 18-77 | 50-60 | 25-40 | 4-6 | C-∞ | — | ..... | * | A | 1 | 1 | Lathyrus | 128 | Italy. |
| 22-84 | 100-120 | 25-40 | 1.5-1.75 | — | — | ..... | * | ..... | 1 | 1 | Polygala | 145 | N. America. |
| 11-60 | 300-350 | 25-40 | 4-6 | 2-3 | 0 | ..... | * | A | 1 | 1 | Nicotiana | 256 | Argentina (LaPlata). |
| | | | | | | | * | A | 1 | 1 | Calamus | 23 | Australia |
| | | | | | | | * | A | 1 | 1 | Senecio | 280 | (Queensland). |
| | | | | | | | * | | ... | ... | Croton | 137 | Argentina. Erythraea (Saganetti). |

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| Volume No. | Species No. | Diameter of Pyrenidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Guttae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
|------------|-------------|-------------------------|-------------------|---------------------|------------------|-------------------|------------------|----------------|------------------|------------------|--------------|----------------|----------------------------|
| 11 | 11 | 84 | 25-40 | 6-7 | 1 | * | ..... | ..... | A | 3 | Peraphyllum | 126 | U. S. A. (Utah). |
| 10-165 | 11 | 84 | 25-40 | 1.5 | 1 | * | ..... | ..... | A | 1 | Cuphea | 216 | U. S. A. (Del.). |
| 10-137 | 11 | 84 | 25-40 | 1.5 | 1 | * | ..... | ..... | A | 1 | Solidago | 280 | U. S. A. (N. Y.). |
| 10-45 | 11 | 84 | 25-40 | 4 | 1 | * | ..... | ..... | ..... | 1 | Dieravilla | 271 | U. S. A. (Del.). |
| 10-116 | 11 | 84 | 25-40 | 1-1.2 | 1-3 | ..... | ..... | ..... | A | 3 | Chicus | 280 | Argentina (Fuegi Islands). |
| 10-133 | 11 | 84 | 25-40 | 2-2.5 | 1-3 | ..... | ..... | ..... | A | 3 | Senecio | 280 | Argentina (Fuegi Islands). |
| 3-345 | 11 | 84 | 25-40 | ..... | ..... | ..... | ..... | ..... | A | 1 | Scrophularia | 257 | U. S. A. (N. Y.). |
| 22-64 | 5 | 60-80 | 25-45 | 2.5-3 | 3-5 | ..... | ..... | ..... | A | 1 | Galium | 270 | Japan. |
| 14-5 | 5 | 100-115 | 25-45 | 2.3 | C | ..... | ..... | ..... | A | 1 | Brassica | 105 | U. S. A. (W. Va.). |
| 14-48 | 5 | 100-115 | 25-45 | 2-2.5 | C | * | ..... | ..... | A | 1 | Kalmia | 233 | U. S. A. (N. J.). |
| 3-554 | 5 | ..... | 25-45 | ..... | ..... | ..... | ..... | ..... | A | 1 | Yucca | 38 | U. S. A. (Pa.). |
| 10-178 | 10 | ..... | 25-45 | ..... | ..... | ..... | ..... | ..... | A | 4 | Asclepias | 248 | U. S. A. (Wisc.). |
| 11-10 | 10 | ..... | 25-50 | 2-2.5 | 1 | ..... | ..... | ..... | A | 4 | Negundo | 163 | Canada. |
| 11-26 | 11 | ..... | 25-50 | 2 | 1-3 | ..... | ..... | ..... | A | ..... | Echinocystis | 275 | U. S. A. (Cal.). |
| 11-31 | 11 | ..... | 25-50 | 2.5-3 | 1-2 | ..... | ..... | ..... | A | ..... | Rhamnus | 228 | France. |
| 14-23 | 14 | 100-110 | 25-55 | 3-4 | 3 | ..... | ..... | ..... | A | 1 | Daucus | 56 | Italy. |
| 22-128 | 22 | 100-140 | 25-60 | 1-1.3 | 1-3 | * | ..... | ..... | A | 3-6 | Populus | 280 | U. S. A. (Cal.). |
| 22-83 | 22 | 60-80 | 25-60 | 1.5-2.5 | 1-3 | ..... | ..... | ..... | A | 1 | Doronicum | 280 | Poland (Galicia). |
| 3-404 | 3 | ..... | 26-28 | ..... | ..... | ..... | ..... | ..... | A | 1 | Mulgedium | 280 | Siberia in Asia. |
| 14-74 | 14 | 180 | 26-29 | ..... | ..... | ..... | ..... | ..... | A | 3 | Poa | 19 | Italy. |
| 10-138 | 10 | 150-160 | 26-30 | 1 | 1 | ..... | ..... | ..... | A | 1 | Philodendron | 23 | Italy. |
| 14-9 | 14 | 150-160 | 26-30 | 1-1.2 | C | ..... | ..... | ..... | A | 1 | Monina | 23 | Italy. |
| 22-61 | 22 | 150-220 | 26-33 | 2-2.5 | 0 | ..... | ..... | ..... | A-23 | 3 | Zygophyllum | 135 | Germany. |
| 3-185 | 3 | ..... | 27 | 3.5-4 | 0 | ..... | ..... | ..... | 2-4 | ..... | Soldanella | 237 | Bohemia. |
| 3-562 | 3 | 140-170 | 27-30 | 3-3.5 | C | ..... | ..... | ..... | A | ..... | Pinus | 6 | U. S. A. (S. Car.). |
| 18-26 | 18 | ..... | 27.5-35 | ..... | ..... | ..... | ..... | ..... | A-39 | ..... | Convallaria | 38 | No locality. |
| 3-485 | 3 | ..... | 28 | ..... | ..... | ..... | ..... | ..... | A | 3 | Dianthus | 87 | Sicily. |
| 3-379 | 3 | ..... | 28 | ..... | ..... | ..... | ..... | ..... | A | 3 | Melica | 19 | Northern Italy. |
| 3-162 | 3 | ..... | 28-30 | 2.5 | 3 | 3-5 | ..... | ..... | A | 4 | Gentiana | 246 | Siberia in Asia. |
| 3-571 | 3 | ..... | 28-30 | ..... | ..... | ..... | ..... | ..... | A | 3 | Populus | 56 | Italy. |
| 3-504 | 3 | ..... | 28-30 | ..... | ..... | ..... | ..... | ..... | A | 3 | Epipactidus | 50 | Northern Italy. |
| 10-176 | 10 | 80-90 | 28-30 | ..... | ..... | ..... | ..... | ..... | A | 3 | Brachypodium | 19 | Northern Italy. |
| 18-36 | 18 | 80-90 | 28-31 | 2-2.5 | 3 | 8-10 | | | | 1 | Vinca | 247 | France. |
| 3-247 | 3 | | 28-32 | | | | | | A | 3 | Cryptostemma | 280 | Australia (Victoria). |
| | | | | | | | | | A | 3 | Silene | 87 | France. |

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| 16-31 | 100-140 | 28-32 | 2-5-3 | — | 0 | * | A | 3 | Stellaria | 87 | U. S. A. (Col.) |
| 14-39 | 100-140 | 28-32 | 1 | — | 0 | | A | 3 | Carolina | 280 | Italy. |
| 3-443 | | 28-34 | 1-1-2 | 3-4 | — | | A | | Sonchus | 280 | Siberia. |
| 3-220 | | 28-36 | 1-1-5 | C | — | | A | | Lythrum | 216 | France. |
| 3-876 | 80 | 28-36 | 1-1-3 | C | — | | A | 3 | Teucrium | 254 | France. |
| 11-71 | 130 | 28-43 | 3-5 | 2-4 | — | | A | | Avenae | 19 | Germany |
| 3-873 | | 30 | 2-2-5 | 3 | — | | A | 3-4 | Drachoccephalum | 254 | (Pomerania). |
| 3-863 | | 30 | 1-6 | C | — | | | 1 | Melissa | 254 | Siberia in Asia. |
| 3-822 | | 30 | 1-5 | 3 | — | | | | Sison | 254 | France and Italy. |
| 3-256 | | 30 | 2-2-5 | — | — | | A | 3 | Spergula | 228 | France and Italy. |
| 3-210 | | 30 | 1-5 | C | — | | A | | Geum | 87 | Belgium. |
| 3-204 | | 30 | 1-7-5 | — | — | | A | | Orobis | 126 | Europe. |
| 3-97 | | 30 | 2-5 | — | — | | A | 1 | Ancuba | 126 | Italy. |
| 3-79 | | 30 | 3-5 | — | — | | A | 1 | Prunus | 137 | Belgium. |
| 3-74 | | 30 | | 1 | — | | A | 3 | Sorbus | 126 | France. |
| 22-143 | 100-150 | 30 | 2 | — | — | | A | | Bromus | 19 | Germany. |
| 16-82 | | 30 | 1-5 | — | — | | A | | Parietaria | 65 | Argentina. |
| 10-216 | | 30 | 1 | C | — | | A | | Lolium | 20 | Italy. |
| 10-204 | | 30 | 1 | — | — | | A | | Lepidosperma | 19 | Australia. |
| 10-43 | | 30 | 2 | — | — | | A | | Coprosma | 270 | Italy. |
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| 11- 35 | 40-50 | 2-2.5 | 3-∞ | * | * | ∞ | A | ∞ | Chrysanthemum | 280 | Germany |
| 11- 49 | 40-50 | 2-2.5 | ∞ | * | * | ∞ | A | ∞ | Tecoma | 258 | U. S. A. (W. Va.). |
| 11- 57 | 40-50 | 1-3 | 1-3 | * | * | ∞ | A | 3 | Rumex | 77 | Netherlands. |
| 14- 36 | 40-50 | 2 | 5 | * | * | ∞ | A | ∞ | Chrysanthemum | 280 | Denmark. |
| 14- 52 | 40-50 | 1-1.5 | 5 | * | * | ∞ | A | 1 | Diospyros | 240 | Australia (N. S. W.). |
| 14- 61 | 40-50 | 4 | 3 | * | * | ∞ | A | 3 | Quercus | 62 | France. |
| 16- 79 | 40-50 | 1-1.5 | C. | * | * | ∞ | A | ∞ | Chenopodium | 78 | Argentina. |
| 22-135 | 40-50 | 1.5 | C. | * | * | ∞ | A | 3 | Allium | 38 | Argentina. |
| 22- 95 | 40-50 | 2 | C. | * | * | ∞ | A | 3 | Allium | 38 | Argentina. |
| 22- 94 | 40-50 | 1-1.5 | ∞ | * | * | ∞ | A | 3 | Sonchus | 280 | France. |
| 18- 19 | 40-50 | 1-1.5 | ∞ | * | * | ∞ | A | 1 | Norantea | 184 | Peru. |
| 18- 68 | 40-50 | 1-3 | 1-3 | * | * | ∞ | A | 1 | Laseguea | 247 | Italy. |
| 22- 49 | 40-50 | 1 | 3 | * | * | ∞ | A | ∞ | Hydrocotyle | 228 | Brazil. (Sao Paulo). |
| 14- 34 | 40-54 | 2-3 | ∞ | * | * | ∞ | A | ∞ | Helopsis | 280 | Canada (Ontario). |
| 10-200 | 40-54 | 3.5 | 5-7 | * | * | ∞ | A | 3-4 | Juncus | 36 | Cape Horn. |
| 22- 94 | 40-54 | 2 | C. | * | * | ∞ | A | ∞ | Sonchus | 280 | Hungary. |
| 10- 10 | 40-55 | 2.5-3 | 2-3 | * | * | ∞ | A | 3 | Esoralea | 128 | U. S. A. (Kan.) |
| 3-118 | 40-55 | 4 | ∞ | * | * | ∞ | A | 3 | Fraxinus | 243 | U. S. A. (Iowa). |
| 3- 66 | 40-55 | 1.5 | 2-3? | * | * | ∞ | A | 1 | Rubus | 126 | England, America. |
| 10-164 | 40-55 | 1-1.2 | ∞ | * | * | ∞ | A | 1 | Steronema | 237 | U. S. A. (Del.). |
| 3- 629 | 40-55 | 2 | 3-12 | * | * | ∞ | A | 1 | Scirpus | 20 | France. |
| 3-401 | 40-55 | 6-7 | 4-5 | * | * | ∞ | A | 3-6 | Tussilago | 280 | Italy, Rheno-govia. |
| 3-324 | 40-55 | ∞ | C. | * | * | ∞ | A | 1 | Anthriscus | 228 | France. |
| 3- 57 | 40-60 | 5-6 | 1-2 | * | * | ∞ | A | 3 | Robinia | 128 | Germany. |
| 3-100 | 40-60 | 1.5 | ∞ | * | * | ∞ | A | 1 | Lonicera | 271 | Switzerland. |
| 3-156 | 40-60 | ∞ | ∞ | * | * | ∞ | A | 1 | Salix | 56 | N. America. |
| 3-163 | 40-60 | ∞ | ∞ | * | * | ∞ | A | 1 | Ostrya | 61 | N. America. |
| 3-198 | 40-60 | 4-5 | ∞ | * | * | ∞ | A | 1 | Lupine | 128 | U. S. A. (Cal.). |
| 3-140 | 40-60 | 1-2 | 1-3 | * | * | ∞ | A | 3 | Phlox | 250 | Northern Italy. |
| 3-429 | 40-60 | 1 | ∞? | * | * | ∞ | A | 1 | Galinsoga | 280 | Argentina. |
| 22- 89 | 40-60 | 2-2.5 | C. | * | * | ∞ | A | 1 | Megarrhiza | 275 | U. S. A. (Wash.). |
| 11- 25 | 40-60 | 2.5-3 | C. | * | * | ∞ | A | 1 | Megarrhiza | 280 | U. S. A. (Wash.). |
| 10- 72 | 40-60 | 2 | ∞ | * | * | ∞ | A | 4-6 | Pterocera | 107 | France. |
| 10- 32 | 40-60 | 2-2.5 | C. | * | * | ∞ | A | ∞ | Waltheria | 197 | Brazil. |
| 10- 75 | 40-60 | 125-175 | ∞ | * | * | ∞ | A | 3 | Astragalus | 128 | U. S. A. (Ariz.). |
| 10- 82 | 40-60 | 5-6 | C. | * | * | ∞ | A | 3-6 | Glycyrrhiza | 128 | U. S. A. (Kan.). |
| 10-149 | 40-60 | ∞ | ∞ | * | * | ∞ | A | 1 | Sicydium | 275 | U. S. A. (N. Y.). |
| 10-157 | 40-60 | 1.2-1.5 | ∞ | * | * | ∞ | A | 1 | Mentzelia | 206 | U. S. A. (Kan.). |

| Volume No. | Species No. | Diameter of Pycnidium | Length of Spores | Diameter of Spores | Number of Septa | Number of Guttulae | Spores straight | Spores curved | Color of Spores | Shape of Spores | Host Genus | Family Number | Locality |
|------------|-------------|-----------------------|------------------|--------------------|-----------------|--------------------|-----------------|---------------|-----------------|-----------------|---------------|---------------|---------------------|
| 10-167 | | 80-100 | 40-60 | .5-1 | 2 | — | * | * | A | 1 | Convolvulus | 249 | France |
| 11-17 | | 80-100 | 40-60 | 1.5-2 | 2 | — | * | * | A | 1 | Eugenia | 222 | Central America |
| 14-66 | | 80-100 | 40-60 | 1.5-2 | 2 | — | * | * | A | 1 | Muscarium | 39 | France |
| 16-65 | | 80-100 | 40-60 | 2 | 2 | — | * | * | A | 1 | Solanum | 256 | Argentina (LaPlata) |
| 18-81 | | 100-120 | 40-60 | 1-1.5 | 2 | — | * | * | A | 1 | Conioselinum | 228 | Alaska |
| 18-85 | | 100-120 | 40-60 | 1-1.5 | 2 | — | * | * | A | 1 | Panicum | 19 | Argentina |
| 22-56 | | 70-100 | 40-60 | 1.5-2 | 2 | — | * | * | A | 1 | Conium | 280 | Hungary |
| 18-119 | | 150-250 | 40-60 | 5-6 | 1-3 | 8 | * | * | A | 1 | Celtis | 63 | Peru |
| 22-102 | | 100-170 | 40-60 | 1-2 | 1 | — | * | * | A | 1 | Veronica | 257 | Italy |
| 22-60 | | 75-100 | 40-60 | 1-1.5 | 1 | — | * | * | A | 1 | Centella | 238 | Chile |
| 22-50 | | 150-200 | 40-70 | 3-4 | 1-3 | — | * | * | A | 3 | Lascepium | 238 | Austria |
| 18-91 | | 150 | 40-70 | 4-4.5 | 8-12 | — | * | * | A | 1 | Phragmites | 19 | Bohemia |
| 18-52 | | 50-80 | 40-70 | 2-2.5 | 8 | — | * | * | A | 1 | Anarrhinum | 156 | Portugal |
| 18-8 | | 100-600 | 40-70 | 2.5-3.5 | 8-12 | — | * | * | A | 1 | Sorbus | 166 | Holland |
| 11-1 | | 100-600 | 40-70 | 2-2.5 | 3 | — | * | * | A | 9 | Clematis | 161 | U. S. A. (N. Y.) |
| 22-86 | | 60-100 | 40-70 | 2 | 1-5 | — | * | * | A | 1 | Cirsium | 280 | Bulgaria |
| 22-80 | | 60-90 | 40-70 | 2-3 | 3-C | — | * | * | A | 1 | Linosyris | 250 | Hungary |
| 22-101 | | 100-150 | 40-70 | 1.5-2 | 3 | — | * | * | A | 1 | Veronica | 251 | Hungary |
| 10-156 | | 160-130 | 40-75 | 1.5-2 | 8 | — | * | * | A | 3 | Brunella | 254 | N. America |
| 2-433 | | | 40-80 | 1.5-2 | 8-12 | — | * | * | A | 6 | Cirsium | 280 | Northern Italy |
| 3-122 | | | 41-51 | 3-5 | 2-3 | — | * | * | A-35 | 3 | Boerhavia | 80 | Abyssinia |
| 3-332 | | | 42-48 | 4-5 | 5-7 | — | * | * | A | 3 | Phyllirea | 243 | Portugal |
| 3-400 | | | 42-48 | 2.4 | 3-4 | — | * | * | A | 3 | Pyrola | 233 | Russia |
| 3-532 | | | 43-50 | 2.5 | 5-7 | — | * | * | A | 3-6 | Aydenophora | 276 | Siberia |
| 3-539 | | | 43-45 | 2.2 | C-80 | — | * | * | 23 | 4 | Arum | 23 | France and Italy |
| 18-74 | | 100-130 | 43-45 | 2.2 | 8 | — | * | * | 23 | 4 | Sparganium | 10 | Northern Italy |
| 18-44 | | 60-80 | 44-52 | 2.2 | 4 | — | * | * | 23 | 3 | Populus | 56 | Italy |
| 3-3 | | | 45 | 2.5 | C | — | * | * | A | 1-6 | Galeopsis | 254 | France |
| 3-500 | | | 45 | 3.5-4 | 45 | 8 | * | * | A | 1-6 | Berberis | 93 | Italy |
| 3-159 | | | 45 | 3 | 1 | — | * | * | A | 3 | Calamagrostis | 19 | Russia |
| 22-99 | | 120 | 45 | 3 | 1 | — | * | * | A | 3 | Populus | 56 | Europe |
| 10-155 | | | 45 | 1 | 1 | — | * | * | A | 1 | Citrullus | 275 | Russia |
| 3-52 | | 80-90 | 45-48 | ..... | 1 | — | * | * | A | 1 | Rhus | 254 | Scotland |
| 22-3 | | 100-150 | 45-50 | | 1 | — | * | * | A | 1 | Aconitum | 153 | U. S. A. (Ill.) |
| 3-581 | | 100-150 | 45-50 | 3.2-4 | 6-7 | — | * | * | 33-39 | 3 | Cicadae | 91 | Sinarum |
| | | | | | | | | | | | | 1 | Italy |

| | | | | | | | | | | | |
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| 3-327 | 70-80 | 45-50 | 1.5 | *? | — | * | A | 3-6 | Hydrocotyle | 228 | Argentina. |
| 3-294 | 120 | 45-50 | 2 | 3? | — | | | 1 | Delphinium | 91 | France. |
| 3-311 | ..... | 45-50 | 3.5-4 | 4 | 5 | ..... | ..... | 3 | Hieracium | 223 | Europe. |
| 14-41 | 130-150 | 45-50 | 3 | — | — | ..... | ..... | ..... | Scabiosa | 274 | France. |
| 11-29 | ..... | 45-50 | 3-3.5 | 3 | — | ..... | ..... | ..... | Laserpitium | 228 | Italy? (Appen- nines). |
| 10-20 | % mm. | 45-50 | 2 | 3? | — | ..... | ..... | 1 | Prunus | 126 | Germany. |
| 10-56 | ..... | 45-50 | 1-1.5 | 6-7 | — | ..... | ..... | 3 | Linnæa | 271 | Germany. |
| 14-14 | ..... | 45-50 | 2-2.5 | — | * | ..... | ..... | 3 | Lycinus | 87 | France. |
| 18-41 | 120 | 45-50 | 1.5 | 3-4 | * | ..... | ..... | 1 | Erigeron | 280 | Northern Italy. |
| 22-15 | 75-90 | 45-50 | 1.5-2 | — | — | ..... | ..... | 1 | Rhumbachia | 19 | Argentina. |
| 22-144 | 200-250 | 45-50 | 1.5 | 1 | ∞ | ..... | ..... | 1 | Hordeum | 33 | Northern Italy. |
| 3-568 | ..... | 45-50 | 4 | — | — | ..... | ..... | 1-3 | Erythronium | 64 | Italy. |
| 3-466 | 90 | 45-55 | 2-2.5 | 3? | — | ..... | ..... | 3 | Cannabis | 91 | ..... |
| 3-301 | 120-140 | 45-55 | 1.5-2 | 3? | 4-6 | ..... | ..... | 3 | Paeonia | 356 | Argentina. |
| 3-354 | 80-90 | 45-55 | 1-1.5 | 3? | — | ..... | ..... | 3 | Salichroa | 280 | Argentina. |
| 3-409 | 80-90 | 45-55 | 1-1.5 | C. | — | ..... | ..... | 3 | Baccharis | 19 | Northern Italy. |
| 3-502 | ..... | 45-55 | 3.5 | ∞ | ∞ | ..... | ..... | 3-4 | Acer | 163 | Germany. |
| 3-19 | ..... | 45-55 | 3 | 3 | ∞ | ..... | ..... | 1 | Brachypodium | 126 | Northern Italy. |
| 3-213 | ..... | 45-55 | ..... | — | — | ..... | ..... | 1 | Tormentilla | 126 | Europe. |
| 10-120 | 125-130 | 45-55 | 1-1.5 | — | — | ..... | ..... | 1 | Helianthus | 280 | U. S. A. (N. J.). |
| 10-218 | ..... | 45-55 | 1-1.5 | — | — | ..... | ..... | 1 | Calamagrostis | 19 | Arduennis, |
| 11-50 | ..... | 45-55 | 1-1.2 | — | ∞ | ..... | ..... | ..... | Lobelia | 276 | Germany |
| 11-59 | 90-120 | 45-55 | 2 | 1-3? | — | ..... | ..... | ..... | Phytolacca | 83 | (Berlin) |
| 3-302 | ..... | 45-60 | 2-2.5 | 1-2 | * | ..... | ..... | 4 | Paeonia | 91 | Northern Italy. |
| 22-134 | 128-150 | 45-60 | 2.5-4 | 3 | * | ..... | ..... | 4 | Muscarium | 39 | Siberia in Asia. |
| 22-150 | 180 | 45-60 | 3-4 | 3 | * | ..... | ..... | 1 | Bellevalla | 138 | Montenegro. |
| 22-118 | 250 | 45-60 | 3 | C. | — | ..... | ..... | ..... | Rivinia | 83 | Algeria. |
| 16-4 | 30-140 | 45-60 | 2 | C. | * | ..... | ..... | 1 | Papaver | 104 | Central America |
| 14-3 | ..... | 45-60 | 2 | — | — | ..... | ..... | ..... | Aconitum | 104 | (Guadalup). |
| 11-40 | 75-90 | 45-65 | 1.2-1.5 | — | * | ..... | ..... | ..... | Gallardia | 91 | Italy. |
| 16-2 | 150-240 | 45-68 | 2 | — | * | ..... | ..... | 1 | Peonia | 280 | Siberia. |
| 22-65 | ..... | 45-80 | 2.5-3.5 | 2-4 | — | ..... | ..... | 3 | Asperula | 91 | U. S. A. (Kan.). |
| 18-89 | 65-75 | 46-52 | 3.5-4 | 3 | 0 | ..... | ..... | ..... | Eriophorum | 270 | Servia. |
| 3-486 | 40-45 | 46-54 | 1.1 | — | — | ..... | ..... | ..... | Koleria | 20 | Hungary. |
| 18-88 | 150 | 46-56 | ..... | 4-6 | — | ..... | ..... | ..... | Carex | ..... | Alaska. |
| 3-245 | ..... | 47 | ..... | 3 | — | ..... | ..... | ..... | Primula | 20 | Italy. |
| 3-221 | ..... | 48 | ..... | 3 | — | ..... | ..... | ..... | Silene | 237 | Russia. |
| 16-98 | 120 | 48-60 | 4.5 | — | — | ..... | ..... | 3 | Seselis | 87 | England. |
| 10-152 | 180 | 48-60 | 2 | C. | * | ..... | ..... | ..... | U. S. A. | 228 | (Pa.). |
| 16-52 | 180-220 | 48-60 | ..... | 3? | — | ..... | ..... | ..... | Ammophila | 19 | Siberia. |
| 11-56 | ..... | 48-65 | 4-5 | 1 | — | ..... | ..... | ..... | Lupine | 128 | Thibet. |
| 11-46 | 220 | 50 | 1.5 | ∞ | — | ..... | ..... | ..... | Pauciflorum | 228 | Italy (Verona). |
| ..... | ..... | 50 | ..... | ∞ | — | ..... | ..... | ..... | Vaccinium | 223 | Italy (Verona). |
| ..... | ..... | 50 | ..... | ∞ | — | ..... | ..... | ..... | Solanum | 256 | Ecuador (Quito). |

| Volume No. | Species No. | Diameter of Pycnidium | Length of Spores | Diameter of Spores | Number of Septa | Number of Guttae | Spores straight | Spores curved | Color of Spores | Shape of Spores | Host Genus | Family Number | Locality |
|------------|-------------|-----------------------|------------------|--------------------|-----------------|------------------|-----------------|---------------|-----------------|-----------------|---------------------|---------------|-------------------------|
| 10-108 | 3-228 | ..... | 50 | 2.5 | C | — | * | * | ..... | 3 | Eryngium | 228 | Belgium |
| 10-109 | 3-229 | ..... | 50 | ..... | — | — | ..... | ..... | ..... | 1 | Pistaceae | 153 | Persia? (Nikita Taura) |
| 3-363 | 3-228 | ..... | 50 | 3-5 | — | — | ..... | * | A | 1 | Lamium | 254 | France, England, Italy. |
| 3-241 | 3-228 | ..... | 50 | 1 | 4? | — | * | * | A | 1 | Gossypium | 75 | U. S. A. (S. Car.) |
| 3-228 | 3-228 | ..... | 50 | 1.5 | — | — | ..... | ..... | A | 1 | Eppilobium | 224 | Europe and Siberia. |
| 3-212 | 3-228 | ..... | 50 | 1.5 | — | ∞ | * | ..... | A | 1 | Potentilla | 126 | Germany and Italy. |
| 3-218 | 3-228 | ..... | 50 | 2.5 | C | — | ..... | * | A | 3 | Spirea | 126 | Holland. |
| 3-111 | 3-228 | 100-150 | 50 | 6-7 | 3-4 | — | ..... | * | A | 3-6 | Citrus | 137 | Algeria. |
| 3-495 | 3-228 | ..... | 50 | ..... | — | ∞ | ..... | * | A-22 | 1 | Oryza | 19 | Northern Italy. |
| 3-96 | 3-228 | ..... | 50 | ..... | — | ∞ | ..... | * | A | 1 | Ribes | 117 | Europe. |
| 3-188 | 3-228 | ..... | 50 | ..... | — | ∞ | ..... | * | A | 1 | No host given | 147 | India. |
| 3-235 | 3-228 | ..... | 50 | 2 | 2 | — | ..... | * | A | 1 | Euphorbia | 147 | France. |
| 3-316 | 3-228 | ..... | 50 | ..... | 3 | — | ..... | * | A | 1 | Bupleurum | 228 | France and Portugal. |
| 3-327 | 3-228 | ..... | 50 | 1.5 | 4-6 | — | * | ..... | A | 1 | Lysimachia | 237 | Europe. |
| 3-375 | 3-228 | ..... | 50 | ..... | * | — | ..... | ..... | A | 3 | Lycopus | 254 | France. |
| 3-130 | 3-228 | ..... | 50 | 1.7 | 2 | — | ..... | ..... | A | 1 | Cynara | 280 | Northern Italy. |
| 3-530 | 3-228 | ..... | 50 | ..... | 6-7 | — | ..... | * | A | 3-4 | Scirpus | 20 | Northern Italy. |
| 3-521 | 3-228 | ..... | 50 | 4 | 7-8 | — | ..... | * | A-23 | 3 | Carex | 20 | Northern Italy. |
| 10-180 | 3-228 | ..... | 50-55 | ..... | — | — | ..... | * | A | 1 | Euphorbia | 147 | France. |
| 11-47 | 3-228 | 90-140 | 50-55 | 2-3 | 3-4 | — | ..... | * | A | ..... | Nicotiana | 256 | Ecuador. |
| 18-40 | 3-228 | 60-80 | 50-55 | 4-7 | C | — | ..... | * | A | ..... | Bidens | 280 | Argentina. |
| 3-507B | 3-228 | 150-200 | 50-55 | 3-3.5 | 1-2 | 10-15 | ..... | ..... | A | 3 | Graminae and Hedera | 19 | France. |
| 3-89 | 3-228 | ..... | 50-55 | ..... | — | — | ..... | ..... | A | ..... | Quercus | 222 | Northern Italy. |
| 22-125 | 3-228 | 100-150 | 50-56 | ..... | 8 | — | * | ..... | A | 3 | Osmorrhiza | 62 | Sicily. |
| 10-110 | 3-228 | 100-125 | 50-60 | 4 | 10 | — | ..... | * | A | ..... | Cephalaria | 228 | U. S. A. (N. Y.). |
| 10-142 | 3-228 | 100-200 | 50-60 | 1-1.5 | 5-7 | — | ..... | * | 22 | 1 | Liranea | 274 | France. |
| 11-53 | 3-228 | ..... | 50-60 | ..... | — | — | ..... | * | ..... | ..... | Capsella | 15 | Norway. |
| 16-5 | 3-228 | ..... | 50-60 | 2.5-3 | 3 | — | ..... | * | A | 3 | Mutisia | 105 | Holland. |
| 22-92 | 3-228 | 90-100 | 50-60 | 4-5 | 1-3 | — | ..... | * | A | 4 | Panicum | 280 | Argentina. |
| 22-146 | 3-228 | 120-150 | 50-60 | ..... | C | — | ..... | * | A | 1 | Ranunculus | 19 | Argentina. |
| 3-283 | 3-228 | ..... | 50-60 | 2.5 | 4-6 | * | ..... | ..... | A | 4 | Ranunculus | 91 | Belgium. |

| | | | | | | | | | | |
|--------|--------------------|-------|---------|-------|-------|-------|-------|---------------|-------|---------------------|
| 3-236 | 80-90 | 50-60 | 1-1.5 | 3 | * | A | 1 | Powlesia | 228 | Argentina. |
| 3-252 | ..... | 50-60 | 1.7 | 3-4 | * | ..... | 1 | Solanum | 256 | Europe. |
| 3-245 | ..... | 50-60 | ..... | ..... | * | ..... | 1 | Lepidium | 105 | Europe. |
| 3-208 | ..... | 50-60 | ..... | 3-5 | * | A | 3 | Lathyrus | 128 | Italy. |
| 3-145 | ..... | 50-60 | 1.5 | ..... | * | A | 1 | Quercus | 62 | U. S. A. (S. Car.). |
| 3-142 | ..... | 50-60 | ..... | ..... | * | ..... | ..... | Ficus | 65 | India. |
| 3-25 | ..... | 50-60 | 3-3.5 | 3-4 | * | A | 3-4 | Aesculus | 164 | Austria. |
| 3-63 | ..... | 50-60 | 2.5-3 | 4-5 | * | A | 1 | Rosa | 126 | Italy. |
| 3-233 | ..... | 50-60 | ..... | *? | * | A | 1 | Geranium | 129 | Austria (Moravia). |
| 3-385 | ..... | 50-60 | 2-2.5 | ..... | * | A | 3 | Apocynum | 247 | Northern Italy. |
| 3-498 | ..... | 50-60 | ..... | ..... | * | A | 1-6 | Bromus | 19 | Northern Italy. |
| 3-552 | ..... | 50-60 | ..... | ..... | * | ..... | ..... | Allium | 38 | India. |
| 10-144 | 160-208 | 50-60 | 1.5-2 | C. | * | ..... | 1 | Galium | 270 | U. S. A. (Kan.). |
| 22-111 | 150 | 50-65 | 1.5 | C. | * | A | 1 | Azalea | 233 | Brazil (Sao Paulo). |
| 3-497 | ..... | 50-65 | 1.2-2 | ..... | ..... | A | 1 | Cynodon | 19 | Rhenogovia, Italy. |
| 3-511 | ..... | 50-65 | 1.7-2 | 3 | * | A | 3 | Phragmites | 19 | Northern Italy. |
| 15-97 | 80-100 | 50-65 | 2.5-3.5 | ..... | * | A-23 | ..... | Alopecurus | 13 | Germany. |
| 16-28 | 180-220 | 50-65 | ..... | C. | * | A | 1 | Geranium | 129 | Italy. |
| 3-578 | ..... | 50-65 | 4 | ..... | * | A | 3-6 | Pteris | ..... | Northern Italy. |
| 10-181 | 100-125 | 50-63 | ..... | ..... | * | A | 3 | Rumex | 77 | Siberia. |
| 3-563 | ..... | 50-70 | 3 | ..... | ..... | ..... | ..... | Maranthemum | ..... | Belgium. |
| 3-347 | ..... | 50-70 | 2-3 | *? | * | A | 1 | Ornithogallum | 38 | "Czernatal." |
| 22-79 | 100-150 | 50-70 | 2-2.5 | 3-5 | * | A | 1-6 | Tanacetum | 280 | "Hercules-Furdo." |
| 22-77 | 80-160 | 50-70 | ..... | ..... | ..... | ..... | ..... | Chrysanthemum | 280 | Poland (Galicia). |
| 16-42 | ..... | 50-70 | 2-2.5 | * | * | A | 1-6 | Asperula | 270 | Italy. |
| 10-125 | 87-105 | 50-70 | 1.5-2 | C. | * | ..... | ..... | Lepachys | 280 | U. S. A. (Mo.) |
| 11-12 | 150-160 | 50-70 | 3-4 | 3-00 | ..... | 39 | ..... | Sorbus | 126 | Germany (Saxony). |
| 18-51 | 100 | 50-70 | 1.7-2 | ..... | * | A | 3 | Linaria | 259 | Italy. |
| 22-13 | 90-120x 110-150 | 50-70 | 2.2 | 3-4 | * | ..... | ..... | Geranium | 129 | Montenegro. |
| 3-426 | ..... | 50-70 | 3-5 | *? | * | A | 3 | Senecio | 280 | Northern Italy. |
| 3-251 | ..... | 50-70 | 2.5-3 | 5-7 | * | A | 1 | Lycnelis | 87 | France. |
| 3-282 | ..... | 50-70 | 1.5 | ..... | * | A | 1 | Ranunculus | 31 | Europe. |
| 3-80 | ..... | 50-75 | ..... | ..... | * | ..... | ..... | Prunus | 126 | North America. |
| 3-102 | ..... | 50-75 | ..... | 6 | * | A | 1 | Sambucus | 271 | U. S. A. (N. Y.). |
| 3-428 | ..... | 50-75 | ..... | ..... | * | ..... | ..... | Aster | 280 | U. S. A. (N. Y.). |
| 3-479 | 140-150 | 50-72 | 1.7-2.5 | ..... | * | A | 1-3 | Abies | 6 | "Ardennis." |
| 20-66 | 100-120 | 50-72 | 2.5-3 | ..... | * | A | 3 | Calycophyllum | 270 | Germany. |
| 14-33 | ..... | 50-75 | 2-3 | 2-00 | * | A | 1 | Pyrethrum | 280 | Europe. |
| 3-519 | ..... | 50-75 | 2.7 | 5-6? | * | A | 1 | Scilla | 33 | ..... |
| 10-95 | ..... | 50-75 | 1.5-2.5 | ..... | * | A | 1 | Sedum | 115 | "Fennia." |

| Volume No. | Species No. | Diameter of Pyrenidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Guttulae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
|------------|-------------|-------------------------|-------------------|---------------------|------------------|---------------------|------------------|----------------|------------------|------------------|-----------------------|----------------|-----------|
| 10-101 | 40-50 | 50-75 | 1-5 | 1-3 or C. | ∞ | * | A | 1 | Saxifraga | 117 | U. S. A. (Wisc.). | | |
| 22-67 | 100-120 | 50-75 | 2.5-3 | — | ∞ | * | A | 1 | Calycephyllum | 270 | Argentina. | | |
| 3-428 | 80-100 | 50-75 | 2.5-3 | — | ∞ | * | A | 1 | Leucanthemum | 280 | North America. | | |
| 16-22 | 100-140 | 50-75 | 2.5-3 | 1-3 or C. | ∞ | * | A | 1 | Gaura | 224 | U. S. A. (Kan.). | | |
| 10-109 | 100-140 | 50-80 | 2-3 | ∞ | ∞ | * | A | 1 | Chaerophyllum | 223 | Germany (Bavaria). | | |
| 11-23 | ..... | 50-80 | 2-3 | ∞ | * | * | A | ..... | Chaerophyllum | 228 | Germany (Bavaria). | | |
| 22-105 | 80-100 | 50-80 | 3-4 | 3-5 | — | ..... | A | 1 | Solanum | 256 | Argentina (La-Plata). | | |
| 3-534 | 150-200 | 50-80 | 3 | — | 12-20 | ..... | ? | 1-3 | Juncus | 36 | France. | | |
| 22-152 | 90-100 | 50-80 | 2.5-3 | 5-8 | ∞ | ..... | A | ..... | Oryza | 19 | Japan. | | |
| 16-13 | ..... | 50-84 | 1-2 | C. | 0 | * | A | ..... | Ampelopsis | 170 | Germany (Berlin). | | |
| 18-28 | 100-250 | 50-85 | 2.5-3 | 1 | — | * | A | ..... | Chaerophyllum | 229 | Austria (Bohemia). | | |
| 22-53 | 140-250 | 50-85 | 3-4.5 | 1 | 1 | * | A | ..... | Pimpernella | 223 | Austria (Tirolia). | | |
| 3-203 | ..... | 50-87 | ..... | * | * | * | A | ..... | Lathyrus | 133 | U. S. A. (N. Y.). | | |
| 3-237 | 120-130 | 50-100 | 2-4 | * | — | ..... | A | 1-3 | Acnium | 91 | Northern Italy. | | |
| 22-97 | 90-100 | 50-100 | 1.5-2 | C. | — | ..... | A | 1 | Ambrosia | 280 | Argentina (La-Plata). | | |
| 18-9 | 140-175 | 52-56 | 3.5-4 | 2-3 | — | ..... | A | ..... | Mesembryanthemum | 82 | Australia (Victoria). | | |
| 16-88 | 120-150 | 54-60 | 4-5 | C. | ∞ | * | A | ..... | Asphodeline | 38 | Bulgaria. | | |
| 22-138 | 120-160 | 54-70 | 2.5-3 | ∞ | ∞ | * | 23 | 3 | Schoenus | 280 | Hungary. | | |
| 3-402 | ..... | 55 | ..... | ∞ | ∞ | * | ..... | 4 | Tussilago | 280 | Northern Italy. | | |
| 3-189 | ..... | 55 | ..... | ∞ | ∞ | * | ..... | 1 | No host given. | ..... | U. S. A. (Ala.). | | |
| 3-453 | ..... | 55 | ..... | ∞ | ∞ | * | ..... | 1 | Plantago | 123 | Italy. | | |
| 3-151 | ..... | 55-60 | ..... | ∞ | ∞ | * | A | 1 | Liquidambar | 165 | U. S. A. (N. J.). | | |
| 3-25 | ..... | 55-60 | ..... | C. | ∞ | * | A | 1 | Aesculus | 280 | Northern Italy. | | |
| 11-36 | 100-120 | 55-65 | 1.8-2 | 2-4 | ∞ | * | A | 1 | Chrysanthemum | 280 | Northern Italy. | | |
| 3-436 | ..... | 55-60 | 1.8-2 | 2-4 | ∞ | * | A | 3 | Centauria | 280 | France. | | |
| 22-78 | 80-140 | 55-70 | 2.5-3.5 | ∞ | ∞ | * | A | 1 | Chrysanthemum | 280 | Austria (Bohemia). | | |
| 3-515 | ..... | 55-75 | 1-1.3 | (10-15) C. or * | ∞ | ..... | A | ..... | Graminae | 19 | Europe and America. | | |
| 3-95 | ..... | 55-75 | 1.5 | 1-3 | ∞ | ..... | A | 3 | Ribes | 117 | Siberia. | | |

| | | | | | | | |
|--------|---------|---------|----------|---------|------------|-----|--------------------------|
| 3-414 | 56 | 6-8 | *? or C. | — | Wyethia | 280 | U. S. A. (Cal.). |
| 3-366 | 58 | 1-2 | C. | — | Mentha | 254 | Austria |
| 3-390 | 60 | 3 | 3 | ∞ | Callium | 270 | (Bohemia). |
| 3-538 | 60 | 2 | — | ∞ | Typha | 8 | North America. |
| 3-576 | 60 | 3 | — | * | Equisetum | 3 | France. |
| 3-544 | 60 | 4 | — | * | Veratrum | 38 | Siberia. |
| 3-265 | 60 | 4-6 | C. | * | Cardamine | 105 | Rhenogovia. |
| 3-313 | 60 | 2 | * | (16-20) | Pastinaca | 228 | France and Belgium. |
| 3-449 | 60 | 1.2 | * or C. | — | Dipsacus | 274 | Belgium. |
| 3-67 | 60 | 1.5 | * | * | Crataegus | 126 | France, Italy, Germany. |
| 3-71 | 60 | 3.5 | 2 | ∞ | Pyrus | 126 | Europe. |
| 10-115 | 60-65 | 1-1.5 | C. | * | Centauraea | 280 | France. |
| 3-153 | 60-65 | 2.5-3 | 1 | * | Salix | 56 | Siberia. |
| 3-489 | 60-65 | 3.5-5 | 3-5 | * | Graminae | 19 | France, Italy, England. |
| 3-284 | 60-65 | 4-4.5 | 3 | — | Ranunculus | 91 | Italy. |
| 3-523 | 60-70 | 1.75-2 | C. | 4-6 | Carex | 20 | Italy, France. |
| 3-518 | 60-70 | 1.5 | * | * | Carex | 20 | "Ardenius." |
| 3-307 | 60-70 | 1 | * | — | Cucurbita | 275 | Portugal, North America. |
| 22-20 | 30-50 | 1.5-2 | C. | ∞ | Silene | 87 | Northern Italy. |
| 14-25 | 60-70 | 2-2.5 | ∞ | * | Acer | 163 | Germany. |
| 3-105 | 60-70 | 2-3 | *? | * | Vaccinium | 233 | U. S. A. (S. Car.). |
| 3-205 | 60-70 | 2-3 | 2 | * | Orobun | 126 | Holland. |
| 18-84 | 50-70 | 3.5 | 6-7 | * | Stratiotes | 17 | Holland. |
| 3-507 | 60-70 | 5-6 | 6-7 | * | Phragmites | 39 | Northern Italy. |
| 18-80 | 190-240 | 5 | 4-6 | * | Muscarrum | 19 | Italy. |
| 10-17 | 150 | 3.5-4 | 2 | * | Sorbus | 126 | Germany. |
| 3-135 | 60-75 | 2.5 | ∞ | * | Hippophae | 215 | France. |
| 11-18 | 60-75 | 2-3 | ∞ | * | Eurya | 186 | Ecuador. |
| 3-473 | 60-80 | 2-3 | 10-13 | * | Spartium | 19 | Belgium. |
| 3-448 | 80-120 | 2 | — | * | Dipsacus | 274 | Austria. |
| 10-203 | 20 | 2-3 | ∞ | * | Luzula | 36 | Serbia. |
| 10-219 | 100 | 1.5-2 | ∞ | * | Panicum | 19 | Uruguay. |
| 14-51 | 60-80 | 2-2.5 | C. | * | Mertensia | 252 | Greenland. |
| 22-23 | 60-82 | 2 | 1-5 | * | Melandrium | 87 | Montenegro. |
| 16-41 | 60-90 | 1-1.5 | 0 | * | Endlichera | 280 | Brazil. |
| 10-37 | 60-90 | 5-6 | 5-6 | * | Melastoma | 223 | China (Sangchan). |
| 18-48 | 90-120 | 2-3 | C. | * | Sherardia | 270 | Italy. |
| 22-148 | 150-300 | 2.5-3.5 | — | * | Distichlis | 19 | Argentina. |

| Volume No. | Species No. | Diameter of Pycnidium. | Length of Spores. | Diameter of Spores. | Number of Septa. | Number of Guttae. | Spores straight. | Spores curved. | Color of Spores. | Shape of Spores. | Host Genus. | Family Number. | Locality. |
|------------|-------------|------------------------|-------------------|---------------------|------------------|-------------------|------------------|----------------|------------------|------------------|-------------|----------------|-----------------------------|
| 3-556 | | | 60-100 | 10-12 | 1 | * | * | * | A | 3 | Agave | 40 | Argentina. |
| 16-99 | | | 60-100 | .5-1 | — | * | ..... | * | A | ..... | Psamma | 39 | Denmark. |
| 3-558 | | | 63-114 | ..... | — | * | ..... | ..... | A | ..... | Smilax | 38 | U. S. A. (Pa.) |
| 3-597 | | | 64 | 3-7 | — | ..... | ..... | ..... | A | ..... | Hosackia | 128 | U. S. A. (Cal.) |
| 22-194 | | 170-200 | 64-92 | 1.5-2.5 | 3-5 | ..... | ..... | ..... | A | ..... | Artocarpus | 64 | Samoa. |
| 3-432 | | | 65-70 | ..... | 2-4 | ..... | * | ..... | ..... | ..... | Silybus | 280 | Italy. |
| 10-60 | | | 65-75 | ..... | C | ..... | ..... | ..... | ..... | ..... | Populus | 56 | North America. |
| 3-508 | | | 65-80 | 1.5 | 2-4 | 6-10 | ..... | * | A | ..... | Arundo | 19 | Italy. |
| 18-16 | | 100-150 | 65-80 | 1.5-1.8 | 4-6 | ..... | ..... | * | A | ..... | Citrus | 137 | Brazil (Sao Paulo). |
| 22-139 | | 140-180 | 65-80 | 3.5-4 | 5 | * | ..... | * | 23 | 3 | Scirpus | 20 | Hungary. |
| 11-44 | | | 70 | 1.5-2 | ..... | ..... | ..... | ..... | ..... | ..... | Cephalaria | 274 | U. S. A.? |
| 14-67 | | 60-100 | 70 | ..... | C | ..... | ..... | ..... | A | ..... | Asphodelus | 38 | Tunis. |
| 22-149 | | | 70 | 2-3 | ..... | ..... | ..... | ..... | ..... | ..... | Elymus | 19 | Switzerland. |
| 22-107 | | | 70-75 | 2.5-3 | *? | ..... | ..... | ..... | ..... | ..... | Solanum | 256 | Italy. |
| 10-201 | | 70 | 70-75 | 3 | — | ..... | ..... | * | A | 3 | Eriophorum | 20 | India (Nowaja Sembia). |
| 3-238 | | | 70-80 | 4 | 4-6 | ..... | ..... | * | A | 3-6 | Clematis | 91 | England, Italy, Austria. |
| 14-13 | | 150 | 70-80 | 1.5 | C | * | ..... | * | A | 1 | Epilobium | 224 | Northern Italy. |
| 3-319 | | | 70-80 | 3-4 | ..... | 6-7 | ..... | * | A | 3 | Aegopodium | 258 | Germany, Italy. |
| 3-234 | | | 70-90 | 3-4 | ..... | ..... | ..... | ..... | A | 6 | Rosa | 126 | Europe, Italy. |
| 18-60 | | | 70-90 | 3.5-4.5 | ..... | ..... | ..... | ..... | ..... | ..... | Stellaria | 87 | Malmady. |
| 10-292 | | | 70-90 | 2.5-3 | *? | * | ..... | ..... | A | 1-3 | Eriophorum | 20 | Alaska. |
| 10-158 | | | 70-100 | ..... | C | ..... | ..... | ..... | ..... | ..... | Pteris | ..... | North America. |
| 3-321 | | 75-100 | 70-110 | 1.5 | C | ..... | ..... | * | A | ..... | Solidago | 280 | Canada. |
| 22-69 | | 100-150 | 70-110 | 3 | 3-5 | ..... | ..... | * | A | ..... | Solanum | 256 | Argentina. |
| 22-71 | | 200-300 | 70-120 | 3 | 5-9 | ..... | ..... | * | A | 3 | Phlox | 249 | Italy. |
| 3-49 | | | 70-150 | 2.5-3 | 5 | ..... | ..... | * | A | 1 | Convolvulus | 153 | Russia. |
| 3-506 | | | 75 | ..... | — | ..... | ..... | ..... | ..... | ..... | Rhus | ..... | U. S. A. (New Eng., N. Y.). |
| 3-527 | | | 75-85 | 1 | — | ..... | ..... | ..... | A | 1 | Andropogon | 19 | Northern Italy. |
| 3-560 | | 250-330 | 75-85 | 3-3.5 | 10-12 | ∞ | ..... | * | A-23 | 3 | Scirpus | ..... | France. |
| 11-62 | | 150-200 | 75-100 | 2 | C | ..... | ..... | ..... | A | 1 | Convallaria | 39 | Austria, Sweden, Italy. |
| 3-514 | | 250-330 | 75-105 | 6-8 | ∞ | ..... | ..... | ..... | A | ..... | Celtis | 63 | U. S. A. (Kan.). |
| | | | | 2 | * | ..... | ..... | ..... | A | 3 | Graminae | 19 | Persia. |

| | | | | | | | | | | | |
|--------|---------|---------|------|----|-------|-------|---|-------|---------------------|---------|---------------------|
| 3-407 | 80 | 1 5 | — | *? | ..... | * | A | 1 | Solidago | 280 | Europe. |
| 22-45 | 80-100 | 1-1 5 | — | 0 | ..... | * | A | 1 | Erythrophleum | 128 | Africa. (tropical). |
| 3-423 | 80-100 | 2-2 5 | *? | — | ..... | ..... | A | 1 | Bellis | 280 | Northern Italy. |
| 10-78 | 80-100 | 3 4 | — | — | ..... | * | A | 1 | Lathyrus | 121 | France. |
| 22-139 | 180-250 | 2 5-3 5 | — | — | * | * | A | 3 | Ornithogalum | 39 | U. S. A. (Del.). |
| 18-92 | 80-110 | 2 5-3 | 1-3 | — | ..... | * | A | 1-6 | Munroa | 49 | U. S. A. (Kan.). |
| 16-34 | 75-120 | 2-2 5 | — | * | ..... | * | A | 1 | Pisum | 128 | U. S. A. (S. Dak.). |
| 18-37 | 150-200 | 2 2 | C. | — | ..... | * | A | 1 | Cyperus | 20 | U. S. A. (Ala.). |
| 10-64 | 104 | 4 | — | — | ..... | * | A | 3 | Quercus | 62 | U. S. A. (Fla.). |
| 22-136 | 400-550 | 10-12 | 3-4 | — | * | * | A | 3-6 | Yucca | 39 | Portugal. |
| 3-294 | 85-100 | 3 5-4 | 4 | — | ..... | * | A | 3 | Dictamnus | 137 | Europe. |
| 3-521 | 90 | 3 5 | — | ∞ | ..... | ..... | A | 3 | Alisma | 15 | Northern Italy. |
| 3-33 | 90-100 | 3 5 | ∞ | — | ..... | * | A | ..... | Cytisus | 128 | Italy and France. |
| 10-131 | 100-110 | ..... | — | — | ..... | * | A | 1 | Aster | 280 | N. America. |
| 3-425 | 200-300 | 4-5 | *? | ∞ | ..... | ..... | A | 1 | Leucanthemum | 280 | Italy and Portugal. |
| 3-195 | 120 | 3 | 9-10 | — | ..... | * | A | 1 | Astragalus | 128 | Europe. |
| 10-308 | 120-130 | 2-2 5 | 9-12 | ∞ | ..... | * | A | 1-4 | Scirpus | 91 | Scotland. |
| 22-428 | 120-150 | 2 3 | 3 | — | ..... | * | A | 3 | Podocarpus | 20 | Italy. |
| 22-39 | 180-220 | 3 4 | 7-13 | — | * | * | A | 1 | Anthyllis | 21 & 87 | Italy. |
| 11-77 | 80 | 2 2 | — | ∞ | ..... | ..... | A | 1 | Dictyola? | 21 & 87 | Celebes Islands. |
| 22-110 | 150-240 | 3-4 | *? | — | ..... | * | A | 1 | Vaccinium | 233 | N. America. |

FAMILIES ARRANGED ALPHABETICALLY WITH THE FAMILY NUMBER

- | | |
|------------------------|------------------------|
| 266. Acanthaceae | 107. Capparidaceae |
| 163. Aceraceae | 271. Caprifoliaceae |
| 204. Achariaceae | 205. Caricaceae |
| 272. Adoxaceae | 183. Caryocaraceae |
| 84. Aizoaceae | 87. Caryophyllaceae |
| 15. Alismaceae | 51. Casuarinaceae |
| 79. Amaranthaceae | 153. Celastraceae |
| 40. Amaryllidaceae | 27. Centrolepidaceae |
| 153. Anacardiaceae | 116. Cephalotaceae |
| 209. Ancistrocladaceae | 89. Ceratophyllaceae |
| 98. Anonaceae | 262. Cesneriaceae |
| 247. Apocynaceae | 90a. Cercidiphyllaceae |
| 13. Aponogetonaceae | 78. Chenopodiaceae |
| 157. Aquifoliaceae | 172. Chlaenaceae |
| 23. Araceae | 54. Chloranthaceae |
| 227. Araliaceae | 193. Cistaceae |
| 74. Aristolochiaceae | 230. Clethraceae |
| 248. Asclepiadaceae | 136. Cneoaceae |
| | 195. Cochlospermaceae |
| 73. Balanophoraceae | 263. Columelliaceae |
| 58. Balanopsidaceae | 221. Combretaceae |
| 168. Balsaminaceae | 33. Commelinaceae |
| 86. Basellaceae | 280. Compositae |
| 81. Batidaceae | 127. Connaraceae |
| 208. Begoniaceae | 249. Convolvulaceae |
| 2. Bennettitaceae | 3. Cordaitaceae |
| 93. Berberidaceae | 151. Coriariaceae |
| 61. Betulaceae | 229. Cornaceae |
| 258. Bignoniaceae | 156. Corynocarpaceae |
| 194. Bixaceae | 115. Crassulaceae |
| 177. Bombacaceae | 125. Crossosomataceae |
| 252. Boraginaceae | 105. Cruciferae |
| 32. Bromeliaceae | 217a. Crypteroniaceae |
| 119. Brunelliaceae | 275. Cucurbitaceae |
| 122. Bruniaceae | 120. Cunoniaceae |
| 49. Burmanniaceae | 34a. Cyanastraceae |
| 139. Burseraceae | 1. Cycadaceae |
| 16. Butomaceae | 22. Cyclanthaceae |
| 149. Buxaceae | 82. Cynocrambaceae |
| | 226. Cynomoriaceae |
| 210. Cactaceae | 20. Cyperaceae |
| 148. Callitrichaceae | 154. Cyrillaceae |
| 96. Calycanthaceae | |
| 279. Calyceraceae | 207. Datisceae |
| 276. Campanulaceae | 235. Diapensiaceae |
| 197. Canellaceae | 146. Dichapetalaceae |
| 47. Cannaceae | 78a. Didiereaceae |

FAMILIES ARRANGED ALPHABETICALLY WITH THE FAMILY
NUMBER—Continued

- | | |
|-----------------------|-----------------------|
| 180. Dilleniaceae | 76. Hydnoraceae |
| 43. Dioscoreaceae | 17. Hydrocharitaceae |
| 274. Dipsacaceae | 251. Hydrophyllaceae |
| 188. Dipterocarpaceae | 114. Hydrostachyaceae |
| 112. Droseraceae | |
| | 162. Icacinaceae |
| 240. Ebenaceae | 44. Iridaceae |
| 215. Elaeagnaceae | |
| 171. Elaeocarpaceae | 60. Juglandaceae |
| 189. Elatinaceae | 60b. Julianaceae |
| 150. Empetraceae | 14. Juncaginaceae |
| 234. Epacridaceae | 36. Juncaceae |
| 233. Ericaceae | |
| 30. Eriocaulaceae | 196. Koeberliniaceae |
| 134a. Erythroxylaceae | |
| 123a. Eucommiaceae | 254. Labiatae |
| 181. Eucryphiaceae | 55. Lacistemaceae |
| 147. Euphorbiaceae | 97. Lactoridaceae |
| | 92. Lardizabalaceae |
| 62. Fagaceae | 102. Lauraceae |
| 199. Flacourtiaceae | 219. Lecythidaceae |
| 25. Flagellariaceae | 128. Leguminosae |
| 192. Fouquieriaceae | 59. Leitneriaceae |
| 190. Frankeniaceae | 24. Lemnaceae |
| | 232. Lennoaceae |
| 211. Geissolomaceae | 264. Lentibulariaceae |
| 246. Gentianaceae | 38. Liliaceae |
| 129. Geraniaceae | 152. Limnanthaceae |
| 4. Ginkgoaceae | 132. Linaceae |
| 265. Globulariaceae | 206. Loasaceae |
| 7. Gnetaceae | 245. Loganiaceae |
| 100. Gomortegaceae | 67. Loranthaceae |
| 173. Gonystylaceae | 216. Lythraceae |
| 277. Goodeniaceae | |
| 19. Gramineae | 95. Magnoliaceae |
| 70. Grubbiaceae | 202. Malessherbiaceae |
| 187. Guttiferae | 141. Malpighiaceae |
| | 175. Malvaceae |
| 39. Haemodoraceae | 48. Marantaceae |
| 225. Halorrhagidaceae | 184. Marcgraviaceae |
| 123. Hamamelidaceae | 260. Martyniaceae |
| 103. Hernandiaceae | 28. Mayacaceae |
| 164. Hippocastanaceae | 223. Melastomataceae |
| 159. Hippocrateaceae | 140. Meliaceae |
| 225a. Hippuridaceae | 167. Melianthaceae |
| 133. Humiriaceae | 94. Menispermaceae |
| 80. Hyctasinaceae | 101. Monimiaceae |

FAMILIES ARRANGED ALPHABETICALLY WITH THE FAMILY
NUMBER—Continued

- | | |
|----------------------|-----------------------|
| 64. Moraceae | 77. Polygonaceae |
| 109. Moringaceae | 34. Pontederiaceae |
| 45. Musaceae | 11. Potamogetonaceae |
| 57. Myricaceae | 85. Portulacaceae |
| 267. Myoporaceae | 237. Primulaceae |
| 99. Myristicaceae | 66. Proteaceae |
| 121. Myrothamnaceae | 218. Punicaceae |
| 236. Myrsinaceae | |
| 222. Myrtaceae | 185. Quinaceae |
| 68. Myzodendraceae | |
| | 75. Rafflesiaceae |
| 12. Najadaceae | 91. Ranunculaceae |
| 111. Nepenthaceae | 31. Rapateaceae |
| 255. Nolanaceae | 108. Resedaceae |
| 80. Nyctaginaceae | 26. Restionaceae |
| 88. Nymphaeaceae | 169. Rhamnaceae |
| | 220. Rhizophoraceae |
| 224. Oenotheraceae | 126. Rosaceae |
| 182. Ochnaceae | 270. Rubiaceae |
| 72. Olacaceae | 137. Rutaceae |
| 243. Oleaceae | |
| 213. Oliniaceae | 166. Sabiaceae |
| 71. Opiliaceae | 56. Salicaceae |
| 50. Orchidaceae | 244. Salvadoraceae |
| 261. Orobanchaceae | 69. Santalaceae |
| 130. Oxalidaceae | 165. Sapindaceae |
| | 239. Sapotaceae |
| 21. Palmae | 110. Sarraceniaceae |
| 9. Pandanaceae | 52. Saururaceae |
| 104. Papaveraceae | 117. Saxifragaceae |
| 203. Passifloraceae | 257. Scrophulariaceae |
| 259. Pedaliaceae | 179. Scyttopetalaceae |
| 212. Penaeaceae | 138. Simarubaceae |
| 155. Pentaphragaceae | 256. Solanaceae |
| 35. Phylodraceae | 217. Sonneratiaceae |
| 268. Phrymaceae | 10. Sparganiaceae |
| 83. Phytolaccaceae | 200. Stachyuraceae |
| 6. Pinaceae | 160. Stackhousiaceae |
| 53. Piperaceae | 161. Staphyleaceae |
| 231. Pirolaceae | 37. Stemonaceae |
| 118. Pittosporaceae | 178. Sterculiaceae |
| 124. Platanaceae | 278. Stylidiaceae |
| 269. Plantaginaceae | 241. Styracaceae |
| 238. Plumbaginaceae | 242. Symplocaceae |
| 113. Podostemonaceae | |
| 250. Polemoniaceae | 42. Taccaceae |
| 145. Polygalaceae | 191. Tamaricaceae |

FAMILIES ARRANGED ALPHABETICALLY WITH THE FAMILY
NUMBER—Concluded

- | | |
|------------------------|---------------------|
| 5. Taxaceae | 63. Ulmaceae |
| 186. Theaceae | 228. Umbelliferae |
| 235a. Theophrastaceae | 65. Urticaceae |
| 30a. Thurniaceae | |
| 174. Tiliaceae | 273. Valerianaceae |
| 106. Tovariaceae | 41. Velloziaceae |
| 144. Tremandraceae | 253. Verbenaceae |
| 142. Trigoniaceae | 198. Violaceae |
| 176. Triplochitonaceae | 170. Vitaceae |
| 18. Triuridaceae | 143. Vochysiaceae |
| 90. Trochodendraceae | |
| 131. Tropaeolaceae | 29. Xyridaceae |
| 201. Turneraceae | |
| 8. Typhaceae | 46. Zingiberaceae |
| | 135. Zygophyllaceae |