**An Agaric Monograph.** We have come to expect a very high standard of mycological research between the covers of Persoonia, the official organ of the mycological section of the Rijksherbarium; the most recent publication* does not deviate from this pattern. Dr. Bas has produced a work which will be an example to all those attempting monographic work in the Agaricales. He has not only brought together all the information on the known members of sect. *Lepidella*, no mean task in itself, but also analysed several aspects of the study of the genus *Amanita*. Indeed from the introductory remarks it is soon ascertained that the author has an intimate knowledge of many fleshy fungi.

The first forty pages are an analysis and discussion on the morphological, anatomical and developmental characters of the fruit-body, with particular reference to the volva. The terminology for anatomical structures and associated phenomena adopted by previous authors has been critically examined and from this a more refined system of terms is suggested. The word pileipellis is proposed to replace Fayod's term cuticula and appears to be equivalent to what Pegler and the present reviewer in recent publications have called the pileal surface. A historical survey of the delimitation of the genus *Amanita* and its infrageneric classification is also given in the introduction, along with brief remarks on chemical characters (smell, taste, poisonous or edible qualities and chemical tests) which are of little importance in the taxonomy of this group of agarics. Notes on ecology and distribution as far as determinable from field work and notes accompanying herbarium material are also brief. It is particularly interesting to learn that at least one subsection of *Lepidella* is non-mycorrhizal; mycologists usually think of *Amanita* as composed solely of mycorrhiza formers. Members of Sect. *Lepidella* are a particular feature of the floras of the relatively dry regions of warm temperate, subtropical and tropical areas of the world.

A key to the subgenera and sections of *Amanita* is given after a taxonomic diagnosis of the genus; the rest of the work, 220 pages in all, is allocated to descriptions and discussion on members of subgenus *Amanita* section *Lepidella*. A useful bibliography of nearly 150 entries and ten pages covering insufficiently known or excluded taxa are also presented. 93 species are recognised, 16 of which are described as new, 7 as provisional species; 3 new names and 4 new combinations are introduced. The descriptions are supported by line drawings of the important microscopic characters and sketches of fresh and dry material are added whenever possible; all are exquisitely executed. The taxonomic work is based on an exhaustive examination of types and limited additional collections. Thirteen characters are given in tabular form and the evolutionary trends thought to be exhibited in these characters indicated. *Lepidella* is considered the most primitive section of *Amanita* and within *Lepidella* the *Vittadiniae* is considered the most primitive subsection. A scheme of inter-relationships between the subsections and stirpes within *Lepidella* is illustrated. Section *Lepidella* appears to be recognizable in *Amanita* by the correlated characters of amyloid spores, volva bulbous or not extended into a membranous sac and the appendiculate edge of the expanded cap.

For the non-professional British agaricologist the work, except for the excellent introduction, is of limited appeal for the taxonomic part deals with only three species which occur in the British Isles, i.e. *A. solitaria*, *A. strobiliformis* and *A. vittadinii*. The first is *A. echinocephala* and the second *A. solitaria* of the New Check List of British Agarics and Boleti; the third species remains unchanged. For the first two species British material is cited. I am convinced that Bas is right in changing the names, even though some inconvenience may at first be caused.

At this stage it is impossible to comment on much of the taxonomic part but the keys to subsections, stirpes and species which are to be found at their appropriate positions in the work seem straightforward. However, keys often appear better when one has not material in hand to identify; when tested the keys seemed to work smoothly but the reviewer had limited European and North American material of this group of agarics at hand.

Dr. Bas must be congratulated on his major work, well indexed at all stages and with excellent cross references. Those of us who knew Dr. Bas was involved in this monographic study have been impatiently awaiting its arrival; now it is published we have not been disappointed. We look forward to future parts; we are promised Section *Amidella* next. However, the reviewer particularly looks forward in the future to seeing an article by Dr. Bas on more general aspects of Agaricology. R. WATLING.

* Morphology and subdivision of Amanita and a Monograph on its section Lepidella by C. Bas. *Persoonia* 5: 285–579 (1969).