

Section I

Galaxies, Cluster of Galaxies, and their Data

Galaxies and clusters of galaxies are certainly among the most popular targets for amateur astronomers. They show an incredibly diverse range of size, shape, and internal structure has undoubtedly lead to their fascination among both amateurs and professional astronomers alike. However, this sheer complexity of form and evolution makes it necessary to discuss in detail the physical nature of galaxies and their place in the cosmic hierarchy. This first section outlines some of the current information on these objects. It concentrates on the current astrophysical facts relevant for observation, including catalogs and data. A few sample objects are presented to illustrate some of the major points. The rest of the objects will be presented in more detail in the last section of the book.