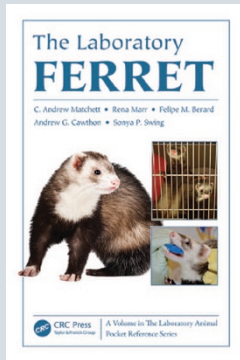


A lab ferret reference guide

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THE LABORATORY FERRET

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The Laboratory Ferret is the latest volume in the Laboratory Animal Pocket Reference Series by CRC Press. This volume provides clinicians and technicians working with the domestic ferret (*Mustela putorius furo*) with a well-rounded source of information about procedures, behaviors, animal care and some medical conditions. There are six well-written chapters with headings that make it easy to quickly find information.

The first chapter reviews the important biological features of the ferret including key anatomic and physiological features. The chapter lists major anatomic features of the ferret that make them appropriate for use as research models in studies of neonatal intubation techniques and influenza research. It also provides excellent figures showing proper handling and restraint techniques and tables listing normative biological data including an extensive table of normal blood values.

The second chapter on husbandry points out that, at this time, there are no standards for caging described in the National Research Council's *Guide for the Care and Use of Laboratory Animals* or the Animal Welfare Act. Appropriate housing is derived from rabbit caging that must be rendered escape-proof. It should be noted that there are a great number of pet ferret caging options available that provide good housing and exercise for ferrets and will hold up under cage washing and laboratory conditions. It is not mentioned that hammocks, which ferrets prefer to ground sleeping boxes, can be provided for sleeping to increase usable cage space. These are also available through pet retailers and hold up well to repeated washing. A section on environment enrichment discusses various toys and treats and recommends pair or group housing, as ferrets are social animals. One controversial item in the nutritional requirements should be noted: although ferrets are strict carnivores and cannot

digest fruits and vegetables, the use of fruits is mentioned as a treat item. There are meat-based ferret treats available in the pet trade which would be preferable. The chapter also discusses sanitation, transportation and record-keeping, including identification methods such as ear tagging or microchipping.

Chapter 3 covers management of ferrets and provides in-depth information concerning regulatory agencies' requirements for housing and using ferrets for research in laboratory settings. It also covers zoonotic potentials, highlighting influenza, campylobacteriosis, salmonellosis and mycobacteriosis as the primary pathogenic threats for those working with ferrets. The chapter also describes what constitutes a suitable occupational health program when ferrets are being used.

Chapter 4 is devoted to veterinary care of the ferret. The chapter starts with the equipment needed and the proper methods for conducting a physical examination. The physical examination includes signalment and history; observation of general appearance, mentation, body weight and condition and hydration; measurement of temperature, pulse and respiration; examination of ears, eyes, nose and throat; and evaluation of lymphatic, urogenital, dermatological, cardiovascular, respiratory and gastrointestinal systems. Common clinical conditions, including diarrhea, weight loss or anorexia, alopecia, vomiting, respiratory difficulties and other conditions less commonly seen, are summarized, and detailed tables on gastrointestinal, respiratory, endocrine and lymphatic diseases are provided. Other tables list common antibiotics, miscellaneous drugs and parasitocides used in ferrets. The chapter highlights the requirements for a preventative medicine program such as vaccination and parasite control. Anesthesia and analgesia methods, surgical and post-surgical care and methods of euthanasia are also addressed.

Chapter 5, "Experimental Methodology," contains most of the color figures of the book. The figures clearly show the techniques being described: handling; restraint (chemical or using equipment such as a restraint tube); washes and swabs; and blood, urine, cerebrospinal fluid and bone marrow collection. The chapter also covers administration of compounds and provides a table listing volumes and needle sizes for the various procedures. Necropsy procedures are also described.

Chapter 6 covers resources and additional information. While the chapter lists the regulatory agencies and some books and publications, it unfortunately does not list some major sources of ferret information such as the website of the Association of Exotic Mammal Veterinarians (<http://www.aemv.org>).

Despite the shortcomings of Chapter 6, this publication achieves the goal of providing the necessary information to work with ferrets in a laboratory animal setting. I recommend adding the book to the working library and reference center of any laboratory working with ferrets.

Johnson-Delaney is the owner of the Avian and Exotic Animal Medical Center in Kirkland, WA.