Precace

Africa’s natural habitats are disappearing at a rapid rate accelerating markedly since
the 1970s. A continent outstanding for its exuberance of life, both in numbers and
variety of flora and fauna, this largely historical treatment provides benchmarks
against which change can be assessed and man’s role in shaping the ecology of
Africa, with putative illustrations of habitats prior to this change. The study offers
an holistic approach, covering themes of significant importance which are usually
neglected in ecological treatments, such as climate, fire, locusts, animal and human
diseases; especially tsetse flies and trypanosomiases, two of the most important
influences in African ecology; as well as treating of the more striking aspects such
as elephant and hippopotamus populations. One of the basic tenets of ecology is the
food web, and Beckerman and Petchley (2009) pointed out that the fundamental
question about patterns of, and mechanisms driving, complexity in food webs, has
effectively ignored parasites and diseases; although a small but growing number of
studies do include them and show how parasites influence measures of species’
richness and food web complexity, according them a prominent role in ecological
networks. Although Hobley attempted to alert to the importance of wild animal
diseases in 1932, it is only very recently there has been an increasing awareness and
interest of their importance in the way in which they affect ecosystems. Despite the
sleeping sickness epidemics at the beginning of the nineteenth century there has
been less attention paid by ecologists to the way in which human epidemic disease,
and chronic diseases also, influence African ecosystems. This study combines these
into a single approach, and in what has been termed the “Anthropocene age”, which
argues that ecologists need to accept the central place of humans in most
ecosystems, it treats humans and their diseases as an integral part of African
ecology. If it reaches into discussions of examples from other countries, as in the
case of plague and its ancient history, this is because Africa, and the diseases which
may have shaped its past, cannot be viewed in isolation.

I began to put this book together in the early 1970s, anticipating present day
concerns, and the culmination of an interest spanning many years the draft was
virtually complete when I read Sinclair and Walker’s remarks in The Kruger
Experience (2003): “. . . had we known what was present on many of the continents
in the 1700s or 1800s, we would have a better idea of what to conserve and how to conserve it. In one hundred years, future generations may wish that we had been wiser”. Clark reminded us of this change as early as 1928: “...between 1909, when I first went to Africa, and 1923, when I went again, vast changes took place in the animal world. In 1909 the Athi Plains swarmed with game. Huge herds of zebras, hartebeests, impallas, giraffes, and scores of other harmless creatures, together with occasional rhinos and lions and other animals, all could still be found on those wonderful grassy plains. To-day one may travel for days at a time in that same district and see only a fraction of the numbers that once covered the plains as far as the eye could reach. To the newcomer, a herd of 50 zebras is a wonderful sight. A few hartebeest, half a dozen giraffes in the distance, and a handful of others may excite him tremendously, and give him the impression that the game is still numerous. But to those who knew the Athi Plains as they were only a little while ago, the remnants of game now to be seen there are pitiful indeed”.

Reiners and Lockwood (2010) recently observed that “...some of the ideas we seek [in ecology] have long existed but scientists are disconnected from our own history. This is exacerbated by our new techniques of extracting literature through electronic means which filters out older material”. Evans (2008) found that as more journal issues come online, the articles referenced tend to be more recent, fewer journals and articles are cited, and more of those citations are to fewer journals and articles, concluding that although searching online is more efficient than searching print, and following hyperlinks quickly puts researchers in touch with prevailing opinion, this may narrow the range of findings and ideas built upon. In other words, history, the formative background to the present, is forgotten.

Growing interest in the subject of change and its historical background resulted in an international conference in 2008, *Ecosystems Changes and Implications on Livelihoods of Rural Communities in Africa*. Kangalawe (2009) notes that the impact of ecosystems’ changes are becoming vivid not only globally but at national and community levels, and that understanding the social driving forces and impacts on ecosystems has emerged as a major objective of the science of global environmental change. In African ecology historical change has been driven more by the human dimension than climate, the latter looms significant in palaeohistoric change, but within the past century has not had the same impact on changing the natural environment as have human factors. The subject matter is changing so rapidly that this volume can provide only a starting point. By the time this is published the glaciers of Africa’s highest mountains may well have disappeared along with Lake Chad, and their loss already felt by both habitats and people.

Showing what rich fields of original investigation still await, especially in the realm of parasites and diseases and their hosts, and employing a different approach to other works on African ecology with its holistic treatment encompassing historical observations and background, treating especially of man as well as animals, this work should provide an indispensable sourcebook setting the benchmarks for African ecology, particularly for students and teachers.
African Ecology
Benchmarks and Historical Perspectives
Spinage, C.
2012, XLI, 1562 p. 332 illus., 4 illus. in color., Hardcover
ISBN: 978-3-642-22871-1