Additional Reading & Other Material of Interest

Last updated: July 2009
Changes since last update (in June 2009) shown in red type

Here are some books and other source material I own or that have been recommended by others and that I think would be of interest to the people who are interested in Koi health - Spike

The comments after the names are the personal opinions of the reviewer and are not necessarily the views of this station <grin> (the obligatory legal and PC statement)

Reviewers thus far:
Spike – Spike Cover
Duncan – Duncan Griffiths
REC – Richard Carlson
Chris – Chris Neaves

Fish Health and Disease


*Spike* – Finally published (by Nick), this is the textbook for the Koi Health Advisor course. Good and fairly complete info on koi health and disease. I’d say it’s the next, and more advanced book for those who have and like ELJ’s book.


*Spike*: This is a KILLER, two volume set. Vol. 1 is text, Vol. 2 is the illustrations and pictures. This is a classic German “over-done in spades” work. Luckily anatomy doesn’t change like the scientific world’s perspective of physiology does. So being written in 1976 doesn’t make it as outdated as works might be that were written on other subjects which tend to change more quickly.


*Spike* - A good general book written on a level that advanced hobbyists can appreciate. Not written specifically for koi but a good book for basic fish anatomy and physiology, immunology, parasites and diseases. Moderately technical.

*REC* – got this one… it is OK.

Spike – This is a very good book on exactly what its title says. You can find it all in this one. It discusses morphology (what the bugs look like), clinical signs, tests, epizootiology (when and where it usually occurs), and some cures. And for those who aren’t into reading about them, there are also some nice colored pix of diseased fish <grin>.


Spike – William Wildgoose is a British vet who was one of the founders of Koi Health Quarterly (reviewed elsewhere in this document). He seems to have done an excellent job with the subject and while I haven’t gotten all the way thru it, the book seems very complete. It’s not a strictly koi book but there is considerable applicable info on koi in it.


Spike - This is a technical book that addresses diseases only and does a very good job of that. It cannot be looked to for cures. Has a very good glossary.

REC – I have this one and agree with your assessment [referring to Spike’s assessment]


Spike - A very detailed book that focuses on the food fish of Europe. Common carp predominate as the species most often referred to in the text and it therefore offers much information applicable to koi culture. Very technical and only for the most advanced hobbyists. Originally recommended to me by Gerry Preston (hobbyist par excellence!) This is without a doubt the “Mother of all fish disease books.”

**REC** – excellent reference. I use it often to correlate other sources of information.

**Spike** – This is a great book. The more I use it, the better I like it.


**Spike** – only for hardcore fish geeks. Tim Miller-Morgan recommended it.


**Spike** – Once considered by many as the ‘Gold Standard’ of fish medicine. Not geared specifically to koi or carp but these fish are covered in the book. Covers basic anatomy, physiology, clinical pathology and medicine for all types of fresh and marine fishes. Fairly technical. Not for any but the more advanced hobbyists.

**REC** – I keep this one under my pillow….


**Spike:** Review later…………………………

Spike: I bought this book used and cheap. Haven’t read it yet but it’s old and likely outdated. That said, it may actually have some interesting stuff in it. If I find anything useful, I’ll try to remember to post it here.


Spike: Furunculosis is believed to be caused by Aeromonas salmonicana and is known as “ulcer disease” or “hole-in-the-side” by Koi keepers. Furunculosis was first described over 100 years ago (1894, in Germany). There are 18 chapters in this book that review and evaluate the individual disciplines that have lead the then current (1997) understanding of this economically important disease.


Spike – If you increase your resolution, you will hopefully be able to read what’s on the back cover scan (to the right).


Spike – The book gives Peter Burgess, Paula Reynolds and William Wildgoose as consultants. That’s a good sign up front.

Spike: This is a very good book on koi health and disease. Lammens is a vet in Belgium with about 8 years of koi experience (as of 2004). The book is well written and has excellent pictures. It has good sections on examination, diagnosis, and treatments. Only read about ½ of it so far. Some things look a bit questionable (like the graphic of the koi internal anatomy) but on the whole, it looks like a book that is very worth while owning. I wish it had an index but it does have a very comprehensive table of contents. The graphics are superb. You have to believe that anyone that can present sick fish in a way that looks not all that offensive is on the right track!

Koi Health and Disease, with appendixes – Johnson, Erik, –141 + 46 pages. Spiral bound paperback.

Spike - Basic book written in lay terms, most common situations covered. If you only have one book on koi health, this should probably be it. Somewhat dated, some errors, but still one of the best for koi health and disease.

Duncan - I must echo spikes thoughts about this book, this IS the book that is a must have. It is also the one to travel with if only for dose rates and chemical references, its no great shame to look a dose rate up pond side rather than dose wrong, and this is the book for that purpose.

REC – The KHA should be required to have this book. If for no other reason, this is required reading for every koi owner and the KHA should recommend this book. This is not an endorsement of Eric Johnson, but hands down, no other book covers the needed topics for successful koi keeping like this one.


Spike – For all of us ELJ fans, this was a welcome update. For the most part it’s the classic Doc Johnson we’ve come to know and love. I’m making a little “Spike errata” as I read thru it and will try to post it here eventually.

**Duncan** - As you can see this book is bang up to date written by a vet and starts with an excellent water quality section, and moves into physiology. Excellent dissection pictures before moving into clinical problems and treatments. Neat, cheapish and informative book, be warned although small it is an in depth book and you will need to be up to scratch on your chemical ID symbols and Periodic Tables [as] he uses them a lot, my favorite read at the moment.

**Spike** – Excellent book. I find something new and worthwhile each time I read it.


**Duncan** - Just love this book, it’s got to be one of the all time great chemical treatment references, and disease references, honest you will never of heard of a lot of them. Great decision tree at the beginning.


**Spike** – Every parasite of freshwater fish known to man (and then some). Much of the information is apparently in the reference material as the text on each parasite is very limited.


**Spike** – This book is probably not for koi keepers. The parasites described, outside of Ich and flukes, are not often seen (or at least not often diagnosed) in our koi. Save your money and if you want anything from this one, just contact me.


**Spike** – Much more text about each parasite than Hoffman - so you don’t have to go to the references to find much of the information (like you do with Hoffman).

Spike - Very technical, very detailed, very good if you want to know the inner working of fish in minute detail. Don’t even look at the cover if you’re not a techno nerd – it will blow your brains out! (or at least give you a headache)


Spike - Very technical, very detailed. The editors have employed a whole new group of authors for this edition reportedly so that fresh approaches would be taken to the subjects. Much of the info, e.g., Locomotion, has virtually no interest for us hobbyists. Other chapters promise the opposite.


Spike – This seems like a very good book. I just got it (Dec ’03) and have already found lots of useful information. Tim Miller-Morgan recommended it.


Spike – A very good practical book for we koi hobbyists and amateur fish fixers (and I’m sure for vets too). Lewbart has included many examples that deal with koi. Also some of the diseases and problems where other fish are used as examples are also applicable to koi. It’s worth while adding to your library.


Spike - Duncan Griffiths, British koi keeper and experienced fish fixer, has written and published a new book, Step by Step Advanced Koi Diagnosis and Treatments. The book was an outgrowth of a continuing education course that Duncan did for the AKCA’s Koi Health Advisor program - a course that received rave reviews from the KHA’s that took his classes.
SSAKDT is a true soup-to-nuts treatment of the title’s subject, it is well illustrated and has a comprehensive index, a very important feature for a good reference book. It covers water problems, parasites and bacterial, viral and fungal diseases. It even has a section referred to as “Bonus Tracks” where Duncan explains microscopes and microscopy, has a diagnosis decision tree and shows some minor surgery.

This is definitely not a stuffy academic text on theory. Duncan’s “colourful” way of writing, using lay language liberally sprinkled with British expressions, adds interest to the subject. And, it also leads us the conclusion that Duncan is definitely a straight forward and hands-on kind of guy. That said, Duncan has included discussions of some of the more complex subjects such as bacterial cultures, staining, and sensitivity testing as well as parameters like Redox or oxidation reduction potential (ORP).

Anyone from a novice koi keeper to the most advanced koi professional can get something from this book. **If you’re building a serious koi library, this is one book you need to have.**


*Duncan* - A toooooo much book! For those who want to know about the inner secrets of virus, bacteria immune systems and much, much more. This is a great book. Heavy going but well worth both the money and the time it takes to digest all its data. My personal choice with more info than a brain should have to handle.

**Aquaculture, Carp, General Fish, Engineering & other reference books**


*Spike* – I know why I bought this book – to learn about aeration. It is about aeration in the treatment of waste. Don’t waste your money.


*Spike* - This is the book for engineering theory and practice relating to everything that’s aquaculture. Way too much for the average hobbyist. This is a book for Norm Meck and Joe Cuny (and, I guess me <silly grin>).

Spike - This is a small book that is at the same time basic and technical. It explains basic concepts but has differential equations to prove the points. If you look past the sometimes complex math and just read the ‘so what’ part, it’s very informative.


Spike – Bought the book for ½ price on Amazon then found out I could have gotten it for ¼ the price on Ebay. Bummer. Anyway, the book seems mostly for government types and those who interface with them. There is a very good chapter (8) that deals with Disinfectants, disinfection and Biosecurity in Aquaculture. This is actually what I had hoped the book would be about. The only individual review of the book I saw online said, “I expected more.” I guess that sums up my feelings too.


Spike - This is a book of facts only. It has: Conversions and equivalents, Water chemistry, Enrichment formulations, Plumbing and materials, Feeds and nutrition, Aquaculture ponds, Chemicals and Treatments and references. Not surprisingly a Brett Rowley recommended book.


Spike – This may seem an odd book to be on the list of recommended reading for info about Koi but Bran Ritchie has included a lot of information to useful understanding the viral diseases that affect our fish. Chapter one, for instance, is an overview of viruses and how they operate. The book is written such that it is understandable by us lay folk and I highly recommend it if you really want to understand viruses.

**Spike:** Here’s a scan of the back cover. If you increase the resolution of the document to about 200%, you’ll probably be able to read it.

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**Spike:** I think Bernice Brewster recommended this book to me.


**Spike** – This is a classic book on limnology (the study of natural fresh water lakes, ponds and rivers). I got the reference from Professor Richard Strange.


**Spike:** This was one of those books that looked interesting but I’ve not used it so far.
**Fish Nutrition** - Edited by **John E. Halver** of the School of Aquatic and Fishery Sciences, University of Washington and **Ronald W. Hardy** of the Hagerman Fish Culture Experiment Station, University of Idaho. Published by Academic Press. ISBN: 0123196523, hardbound, 824 pages, publication date: Jan. 2002.

**Chris** - This is a fantastic book on fish nutrition – but not for the faint hearted! The 824 pages have been divided into clear scientific sections. Each section has different contributors who read like a list of who is who in the scientific world of fish nutrition. Unless you are a total koi nutrition fanatic this well written book is not for the average hobbyist.

The section on Bioenergetics is written by Prof. Dominique P. Bureau, Sadasivam J. Kausik, and Prof C. Young Cho. We learn about the energy requirements of fish. Digestibility of ingredients, effect of biological and environmental factors on energy requirements, etc. etc. Many myths regarding koi and carbohydrates are exploded in this chapter alone.

Chapter 2 written by John Halver deals with all aspects of each and every vitamin in fish foods as well as their requirements.

Robert p. Wilson of the Department of Biochemistry at the Mississippi State University contributed the Chapter on Amino Acids and Proteins. Each amino acid is discussed in detail from the sources and the fate of the amino acids in the body.

Chapter 4 – The Lipids has contributors from The Institute of Aquaculture, University of Sterling in Scotland. Sargent, Tocher and Bell. They discuss Lipids in detail that is way beyond the knowledge the hobbyist needs. It is a fascinating look into an important nutrient of a koi food formula.

Minerals are discussed by Santosh P. Lall. The difficulties of studying mineral requirements to levels of vitamins required by various fish species are discussed at length.

Chapter 6 deals with intermediary Metabolism is written by Prof. Konrad Dabrowski and Helga Gunderley. Carbohydrate metabolism, digestibility, storage and break down are covered. Protein and amino acid metabolism are discussed in detail.

The concluding remark – “Despite the limited importance of carbohydrate in the natural diets of most fish, carbohydrate metabolism is the central pathway by which energy transactions occur in fish as in most animals” – is interesting to koi keepers who for years have had negative impressions of carbohydrates in koi foods.

Chapter 7 – Nutritional Physiology written by Michael B. Rust, covers each organ and its function. Digestive processes are covered in detail.

Diet Formulation and Manufacture by Ronald Hardy and Frederick Barrows gives a history of diet formulation and manufacture. Various feed ingredients for diet formulation are listed. A variety of methods of manufacture and storage as well as shipping are given. How to evaluate the final ingredient levels is also discussed.

Adventitious Toxins by Jerry D. Hendricks for the department of Environmental and Molecular Toxicology, Oregon State University discussed the toxins that can occur in fish feeds. Toxins from animal as well as plant origins are discussed. How to limit the development of toxins is also covered.

Special Feeds are discussed in the short Chapter 11 by George M Pigott and Barbee W. Tucker.
Chapter 12 – Nutrition and Fish Health gives us a fascinating insight into conditions of health and disease, immunity and disease resistance, use of medicated feeds, dietary compounds influencing fish health. Delbert M. Gatlin contributed this chapter.

Diet and Fish Husbandry by Richard Lovell discussed channel catfish, salmonids, tilapias and shrimp with regards nutrient requirements culture methods, feed formulation.

Chapter 14 – Nutrient Flow and Retention by Ronald W. Hardy covers the metabolism of carbohydrate, lipid and amino acids in great detail.

Each chapter has many pages of references listed.


Spike – Lots of good stuff in this one. It’s an oldie but a goodie. I ordered this book and found it very expensive on the web. Its list is around $50 but sites like Amazon want twice that much used! It must out of print or something. Linda Montgomery suggested I check with Fishy Farmacy. I did and they sold me a copy for $50. The usage and references are often difficult to match up. I communicated with Herwig (author) about this and got no satisfactory answers.

**The Merck Veterinary Manual and The Merck Index** –

REC - these are DVM-grade books that are certainly not for everyone but invaluable for those who understand advanced medical presentations. The Merck Index offers detailed and specific information on chemicals and medications that you cannot find anywhere else (almost).


Spike – Sold as an aquaculture book, it has plenty of information for the koi hobbyist. There are topics like: nutritional aspects of health, immunity and disease resistance, dietary need for specific substances, e.g., ascorbic acid, iron, phosphorus, zinc and selenium. It has a chapter on immunostimulants and one on mycotoxins in fish feeds. There is a chapter on dietary lipids and one on vaccines to prevent disease. If you are interested in what, why, how and when to feed, this book should be of definite interest to you.

Spike – Great book for engineering types but if you’re at all technical, you will also find it informative. There is additional info compared to the Wheaton book. It has a CD included but that is more for aquaculture folks. I have found some glitches in the text but have to admit that I haven’t gotten thru that much of it yet.


Spike: Just got this book (10-06) and did so because I’ve always been curious about statistics and what they actually mean. I’m hoping that it will help sort out how many fish a dealer would need to test if they want to do a reasonable lot sample. I’m sure it depends on the size of the lot and other things like if they all came from the same breeder and/or ponds, etc. It will probably take me some time to get into this but it looks like a good reference book judging from the table of contents and the index. If I ever get up the steam to really study it, I’ll report my findings here.


Spike – Veterinarians use much of the same terminology that human medicine does. The Stedman’s I bought came with a handy ‘Student Value Pack’ CD, software that puts the most used words a mouse click away (and works with MS Word). It also has pix of some human anatomy.


REC - Another drug reference manual that is required reading for anyone using meds and chems around their fish.

Spike – I bought the 5th edition, full sized volume (ISBN 0-8138-0518-X). It comes in handy when looking up what drugs are meant for which uses. It even comes in handy if you’re trying to give your dog aspirin for pain (mg/kg dosing).

REC - I also have books on the following topics and use them extensively in correlating information. These are not necessarily recommended reading but good reference material to have around so we can understand the why’s and wherefore’s of meds, chems, and treatments. I am not content to just accept that something works, I want to know why in graphic detail. You would be surprised what you learn.. like potassium permanganate was used to treat gonorrhea (its called “Janet’s Method”… I don’t know who Janet was, but I bet she was brutal) and PP also can cause methemoglobin problems. But you get my point…

- Comparative Animal Physiology – Prosser and Brown
- **Parasitology** – Noble and Noble. Want to learn about lernea, chilondella, costia??
- **Water Bacteriology** (text book)
- **Textbook of Bacteriology**
- **Essentials of Physiological Chemistry**
- **Clinical Interpretation of Laboratory Tests**
- **Practical Bacteriology Blood Work and Parasitology**
- **The Practices and Principles of Embalming** (why this one?? Simple.. the best reference for the effects of formalin)
- **Textbook of Materia Medica and Therapeutics**
- **Pharmacolgy**


**Spike** – A classic book on limnology. My original copy sprouted legs (actually I loaned it to my brother and forgot about it –duh!) but I bought another by calling Boyd direct (334-844-4075).

**General Koi Books**

**Judging & Buying Koi** – AKCA, 2003 - reprints of articles from Koi USA.


**Koi** – Fujita, Grant – no copyright or date of publishing given – AKCA Published – no ISBN number. 119 pages, hardcover.


**Spike** – Good book on koi appreciation. Nothing on other subjects.


**Spike** – This is not a focused completely on health. However, it turns out to be a very good little all around book that is reasonably priced and a good first book for newbies.


Spike – I was lucky enough to have these volumes given to me as gifts. For those of us who got into koi because we loved their beauty and have strived to learn more about that aspect of the hobby, these books are unparalleled. Both volumes come in decorative and protective boxes with volume one having two supplements, a pamphlet titled Questions & Answers that covers 23 varieties; the second is a CD that has exercises that help train the eye for now and later attributes of the fish. For those of you that love to look at these beautiful animals, these volumes will certainly enhance your enjoyment as you learn the art of koi appreciation.

BTW, Karen Pattist was the English editor for these books which just goes to prove that KHAs are not ALL about ulcers, parasites and fish guts <LOL>.


Duncan - An excellent all round book with many topics covered excellent pictures and references From pond design home made vortexes, [foam] fractionators. Good health references with the more common treatments, also breeding koi, winterizing koi and aquarium koi chapters. Again inexpensive and invaluable reading and references.

Practical Koi Keeping, Volumes 1, 2 , & 3 – AKCA – reprints of articles from Koi USA.


Spike – a picture book.


Spike: This seems to be a decent book albeit somewhat dated. It’s an all-around Koi book.

The cover notes:

The Ultimate Koi. The magnificent Koi has emerged from relative obscurity to become on the most highly-prized fish to keep. Choosing from the spectacular varieties, the search for the unique one-off Koi, and the challenge of creating an ideal environment, makes Koi-keeping the most fascinating of hobbies, and it now has a worldwide following.

In The Ultimate Koi, editor Nick Fletcher has recruited a star-studded cast of specialists to contribute to the definitive pictorial reference.

The anatomy and physiology of Koi is examined in Section I, with an insight into the Koi senses. There is a detailed, illustrated breakdown of the Koi varieties, with a special study of the Tategoi and unique Koi.

Section II deals with building and setting up a pond, including an in-depth examination of filtration and a survey of the best plants to buy to create the ideal Koi environment. Advice is given on seasonal care of the Koi pond, plus tips on maintaining a small Koi pond.

Section III is devoted to Koi Care, starting with maturing the pond and filter and buying Koi, followed by chapters on feeding, breeding and handling Koi.

There is comprehensive coverage of disease and parasites in Koi, with advice on disease recognition and treatment.

Enjoying Your Koi is the subject of Section IV. This gives guidelines on showing and judging Koi, and information on the range of club activities available. The final section is a useful reference, with tips on general maintenance and pond security.

Lavishly illustrated with over 200 colour photographs, this book is a must for the true Koi connoisseur.

NICK FLETCHER is a lifelong fishkeeper and angler with a specialist knowledge of Koi. A former editor of Practical Fishkeeping Magazine, he is now a freelance writer and consultant, and is a trainee judge with the British Koi Keepers Society. At home, Nick has a 3,500 gallon Koi pond.


Spike: Nice, inexpensive little book that is fairly up to date and would be a good choice for any newbie that’s considering koi.
Magazines and periodicals

*Koi* – Brit mag that claims to be “Britain’s best-selling Koi Magazine”

*Koi Bito* - English mag out of Japan – struggling and apparently didn’t make it – now reported defunct – too bad

Spike - Relatively new mag for high-end hobbyists. Not quite as “slick” as the new Koi Keepers or NI but the articles are usually good.

*Koi Carp* – now the official mag of the British Koi Keepers Society (BKKS)

*Koi Keepers* – British publication – Now reported as defunct – too bad (seriously).

Spike - Relatively new and “slick” high-end mag out of Brittan.

*Koi USA* – official mag of Associated Koi Clubs of America (AKCA)

*Mid-Atlantic Koi* – official mag of the Mid-Atlantic Koi Club (MAKC)

*Nichirin* – official mag of Zen Nippon Airinkai (ZNA)

*Rinko* – Japanese mag - Now published only online. Ooops! Apparently you can get it both in print and/or online.

*Nishikigoi International* – British publication – Now reported as defunct

*Koi Health Quarterly* – out of print British periodical.

Spike – The best periodical I’ve ever seen directed specifically at koi health. Out of print but you should try to get all the back issues if you can. It’s a great reference.

Other Material

*AKCA Guides* –
Spike – get them all especially the health guide (from the AKCA bookstore). A new nutrition guide has been released so the CAT ID above may not be correct (please check before ordering).

*Koi Health and Disease*, The Technologies (the video) – Johnson, Erik – 1998,

Spike – Very good for microscopic parasite identification and other hands-on procedures. A good companion reference to ELJ’s book.

**Fishdoc, parasites the movie:**

[http://www.fishdoc.co.uk/video/fishmovies.htm](http://www.fishdoc.co.uk/video/fishmovies.htm)

Duncan - this is a useful link to an internet site that will allow you to download mpeg movies taken on a microscope of most of the common parasites. A must if you are not sure what they look like.


Spike – Andy Goodwin, Professor at UAPB, turned me on to this site. It’s a great place to search for “fish geek” stuff, e.g., published papers on various fish related health and disease (particularly if you use the “advanced search” function).

**Amazon.com** the books section

Spike – I’ve found this a good place to buy books. Often you can get used books at a substantial savings over the new price.