

Publications of Prof. David Hoole

1. Books

1.1 Authored Books

HOOLE, D., BUCKE, D., BURGESS, P. & WELLBY, I. (2001) *Diseases of Carp and other Cyprinid Fishes* (Blackwell Scientific Pub.) pp 264.

1.2 Chapters in Books

ARME, C., BRIDGES, J. & HOOLE, D. (1983) Pathology of cestode infections in vertebrate hosts, in: C. ARME & P.W. PAPPAS (Eds) *Biology of the Eucestoda* (London, Academic Press) pp. 499-538.

HOOLE, D. (1994) Interactions between tapeworms and fish, in: LEWIS, J.W. & PIKE, A.W. (Eds) *Parasitic Diseases of Fish* (Dyfed, Samara Pub.) pp119-141.

HOOLE, D. & WILLIAMS, G. T. (2004) The role of apoptosis in non-mammalian host-parasite relationships, in: G.F. WIEGERTJES & G. FLIK (Eds) *Host-Parasite Interactions* (Bios Scientific Publishers) pp13-45.

HOOLE, D. Immune responses of fish to eukaryotic parasites, in : G.ZACCONE, C.PERRIÈRE, A.MATHIS & B.G.KAPOOR (Eds) *Fish Defenses Vol. 2* (US, Science Publishers) Invited review. Publish date 2008

2. Articles

2.1 Peer reviewed journals

HOOLE, D. & MITCHELL, J.B. (1981) Ultrastructural observations on the sensory papillae of juvenile and adult *Gorgoderina vitelliloba* (Trematoda:Gorgoderidae), *International Journal for Parasitology*, 11, pp. 411-417.

HOOLE, D. & ARME, C. (1982) Ultrastructural studies on the cellular response of roach, *Rutilus rutilus*, to the plerocercoid larva of the pseudophyllidean cestode, *Ligula intestinalis*, *Journal of Fish Diseases*, 5, pp. 131-144.

HOOLE, D. & MITCHELL, J.B. (1983) *Gorgoderina vitelliloba*: an ultrastructural study on the development of the tegument from the metacercaria to the adult fluke, *Parasitology*, 86, pp. 323-333.

HOOLE, D. MITCHELL, J.B. & MASON, A.R. (1983) Ultrastructural observations on the penetration glands of *Gorgoderina vitelliloba* (Digenea : Gorgoderidae), *International Journal for Parasitology*, 13, pp. 83-91.

HOOLE, D. & ARME, C. (1983) *Ligula intestinalis* (Cestoda : Pseudophyllidea): an ultrastructural study on the cellular response of roach fry, *Rutilus rutilus*. *International Journal for Parasitology*, 13, pp. 359-363.

HOOLE, D. & MITCHELL, J.B. (1983) Development of the alimentary tract of *Gorgoderina vitelliloba* during migration in *Rana temporaria*, *International Journal for Parasitology*, 13, pp. 445-462.

HOOLE, D. & ARME, C. (1983) Ultrastructural studies on the cellular response of fish hosts following experimental infection with the plerocercoid of *Ligula intestinalis* (Cestoda : Pseudophyllidea), *Parasitology*, 87, pp. 139-149.

HOOLE, D. & MITCHELL, J.B. (1984a) *Gorgoderina vitelliloba*: interaction with frog leucocytes *in vitro* and *in vivo*, *Experimental Parasitology*, 57, pp. 225-233.

HOOLE, D. & MITCHELL, J.B. (1984b) Observation on *Gorgoderina vitelliloba* (Digenea : Gorgoderidae) in *Hyla arborea*, *Zeitschrift fur Parasitenkunde*, 70, pp. 829-831.

HOOLE, D. & ARME, C. (1985) The *in vitro* culture and tegumental dynamics of the plerocercoid of *Ligula intestinalis* (Cestoda : Pseudophyllidea), *International Journal for Parasitology*, 15, pp. 609-615.

HOOLE, D. & ARME, C. (1986) The role of serum in leucocyte adherence to the plerocercoid of *Ligula intestinalis* (Cestoda: Pseudophyllidea), *Parasitology*, 92, pp. 413-424.

HOOLE, D. & BAKKE, T.A. (1988) The microtopography and papillar arrangement on adult *Gorgoderina vitelliloba* (Olsson) (Digenea : Gorgoderidae) from amphibians in relation to fish gorgoderids, *Zoologica Scripta*, 17, pp. 223-230.

HOOLE, D. & ARME, C. (1988) *Ligula intestinalis*: phosphorylcholine inhibition of leucocyte adherence, *Diseases of Aquatic Organism*, 5, pp. 29-33.

TAYLOR, M.J. & HOOLE, D. (1989a) *Ligula intestinalis* (Cestoda: Pseudophyllidea): plerocercoid induced changes in the spleen and pronephros of roach (*Rutilus rutilus*) and gudgeon (*Gobio gobio*), *Journal of Fish Biology*, 34, pp. 583-596.

TAYLOR, M.J. & HOOLE, D. (1989b) *Ligula intestinalis* (Cestoda: Pseudophyllidea): an ultrastructural study of the cellular response of roach fry, *Rutilus rutilus*, to an unusual intramuscular infection, *Journal of Fish Diseases*, 12, pp. 523-528.

ANDREASSEN, J. & HOOLE, D. (1989) Repair of *Hymenolepis diminuta* after complement-mediated damage, *Parasitology*, 99, pp. 437-443.

ANDREASSEN, J., HOOLE, D. & BEFUS, D. (1990) Complement-mediated leucocyte adherence to newly-excysted an 4-day-old *Hymenolepis diminuta*, *International Journal for Parasitology*, 20, pp. 905-911.

WILLIAMS, M.A. & HOOLE, D. (1992) Studies on the kinetics and specificity of the antibody response of roach, *Rutilus rutilus*, to *Ligula intestinalis*, *Diseases of Aquatic Organisms*, 12, pp. 83-89.

TAYLOR, M.J. & HOOLE, D. (1993) *Ligula intestinalis* (Cestoda: Pseudophyllidea): polarization of cyprinid leucocytes as an indicator of host and parasite derived chemoattractants. *Parasitology*, 107, pp. 433-440.

TAYLOR, M.J. & HOOLE, D. (1994) Modulation of fish lymphocyte proliferation by extracts and isolated proteinase inhibitors of *Ligula intestinalis* (Cestoda), *Fish and Shellfish Immunology*, 4, pp. 221-230.

HOOLE, D., ANDREASSEN, J. & BIRKLUND, D. (1994) Microscopical observations on immune precipitates formed *in vitro* on the surface of hymenolepid tapeworms, *Parasitology*, 109, pp. 243-248.

HOOLE, D. & HISAN, H. (1994) Ultrastructural studies on the intestinal response of carp (*Cyprinus carpio*) to the pseudophyllidean tapeworm *Bothriocephalus acheilognathi*, *Journal of Fish Diseases*, 17, pp. 623-629. (20 citations; i.p. 1.712; 14/133 Veterinary Sciences)

RICHARDS, D. T., HOOLE, D., LEWIS, J.W., EWENS, E. & ARME, C. (1994a) Ultrastructural observations on the cellular response of carp (*Cyprinus carpio* L.) to eggs of the blood fluke, *Sanguinicola inermis* Plehn, 1905 (Digenea: Sanguinicolidae), *Journal of Fish Diseases*, 17, pp. 439-446.

RICHARDS, D.T., HOOLE, D., LEWIS, J.W., EWENS, E. & ARME, C. (1994b) Changes in the cellular composition of the spleen and pronephros of carp *Cyprinus carpio* infected with the blood fluke *Sanguinicola inermis* (Trematoda : Sanguinicolidae), *Diseases of Aquatic Organisms*, 19, pp. 173-179.

RICHARDS, D.T., HOOLE, D., LEWIS, J.W., EWENS, E. & ARME, C. (1994c) Phagocytosis of rodlet cells (*Rhabdospora thelohani* Laguesse, 1895) by carp (*Cyprinus carpio* L.) macrophages and neutrophils, *Helminthologia*, 31, pp. 29-33.

TAYLOR, M.J. & HOOLE, D. (1995) The chemiluminescence of cyprinid leucocytes in response to zymosan and extracts of *Ligula intestinalis* (Cestoda), *Fish and Shellfish Immunology*, 5, pp. 191-198.

WILLIAMS, M.A. & HOOLE, D. (1995) Immunolabelling of putative fish host molecules on the tegumental surface of *Ligula intestinalis* (Cestoda : Pseudophyllidea), *International Journal for Parasitology*, 25, pp. 249-256. (1 citation; i.p. 3.392; 4/20 Parasitology)

MORLEY, N.J. & HOOLE, D. (1995) Ultrastructural studies on the host-parasite interface between *Khawia sinensis* Hsu, 1935 (Cestoda : Caryophyllidea) and carp (*Cyprinus carpio* L.), *Diseases of Aquatic Organisms*, 23, pp. 93-99.

RICHARDS, D.R., HOOLE, D., LEWIS, J.W., EWENS, E. & ARME, C. (1996a) Stimulation of carp *Cyprinus carpio* lymphocytes by the blood fluke *Sanguinicola inermis* (Trematoda : Sanguinicolidae), *Diseases of Aquatic Organisms*, 25, pp. 87-93.

RICHARDS, D.R., HOOLE, D., LEWIS, J.W., EWENS, E. & ARME, C. (1996b) *In vitro* polarization of carp leucocytes in response to the blood fluke *Sanguinicola inermis* Plehn, 1905 (Trematoda : Sanguinicolidae), *Parasitology*, 112, pp. 509-513.

RICHARDS, D.R., HOOLE, D., LEWIS, J.W., EWENS, E. & ARME, C. (1996c) Adherence of carp leucocytes to the adult and cercarial stages of the blood fluke (*Sanguinicola inermis*) Plehn, 1905 (Trematoda : Sanguinicolidae), *Journal of Helminthology*, 70, pp. 63-67.

NIE, P., HOOLE, D. & ARME, C. (1996) Proliferation of pronephric lymphocytes of carp, *Cyprinus carpio* L. induced by extracts of *Bothriocephalus acheilognathi* Yamaguti, 1934 (Cestoda), *Journal of Helminthology*, 70, pp.127-131.

MORLEY, N.J. & HOOLE, D. (1997) The *in vitro* effect of *Khawia sinensis* on leucocyte activity in carp (*Cyprinus carpio*), *Journal of Helminthology*, 71, pp. 47-52.

TAYLOR, K. & HOOLE, D. (1997) Interactions between rat C-reactive protein and adult *Hymenolepis diminuta*, *Parasitology*, 115, pp. 297-302.

TAYLOR, K., KUSEL, J. & HOOLE, D. (1997) Membrane fluidity on the surface of *Hymenolepis diminuta* (Cestoda) : immunological implications, *Parasitology*, 115, pp. 667-671.

PENLINGTON, M.C., WILLIAMS, M.A., SUMPTER, J., RAND-WEAVER, M., HOOLE, D. & ARME, C. (1997) Isolation and characterisation of mRNA encoding the salmon-and chicken-II-type gonadotropin-releasing hormones in the teleost fish *Rutilus rutilus* (Cyprinidae), *Journal of Molecular Endocrinology*, 19, pp. 337-346.

HOOLE, D. (1997) The effects of pollutants on the immune response of fish : implications for helminth parasites, *Parassitologia*, 39, pp. 219-225.

PENLINGTON, M.C., HARDEN, N., GARSIDE, J., HOOLE, D. & ARME, C. (1998) Isolation, characterisation and adaptive evolution of mRNA encoding the chicken-II-type gonadotropin-releasing hormone precursor in rainbow trout (*Onchyrnchus mykiss*), *Journal of Fish Biology*, 53, pp. 614-623.

WILLIAMS, M.A., PENLINGTON, M.C., KING, J.A., HOOLE, D. & ARME, C. (1998) *Ligula intestinalis* (Cestoda) infections of roach (*Rutilus rutilus*) (Cyprinidae) : immunocytochemical investigations into salmon- and chicken II-type gonadotrophin-releasing hormone (GnRH) systems in host brains, *Acta Parasitologica*, 43, pp. 232-235.

NIE, P. & HOOLE, D. (1999) Antibody response of carp, *Cyprinus carpio* to the cestode, *Bothriocephalus acheilognathi*, *Parasitology*, 118, pp. 635-639.

NIE, P. & HOOLE, D. (2000) Effects of *Bothriocephalus acheilognathi* (Cestoda : Pseudophyllidea) on the polarization response of pronephric leucocytes of carp, *Cyprinus carpio*, *Journal of Helminthology* 74, pp. 253-257.

SCHUWERACK, P.M.M., LEWIS, J.W., HOOLE, D. & MORLEY, N. (2001) Ammonia-induced cellular and immunological changes in juvenile *Cyprinus carpio* infected with the blood fluke, *Sanguinicola inermis*, *Parasitology*, 122, pp. 339-345.

LEWIS J. & HOOLE D. (2003) Parasitism and environmental pollution : parasites and hosts as indicators of water quality. *Parasitology*, 126, pp. S1-S3.

HOOLE D, LEWIS J.W., SCHUWERACK, P-M.M., CHAKRAVARTHY, SHRIVE A.K., GREENHOUGH T.J & CARTWRIGHT J.R. (2003) Inflammatory interactions in fish exposed to pollutants and parasites : a role for apoptosis and C reactive protein. *Parasitology*, 126, pp. S71-S85.

SCHUWERACK, P-M.M., LEWIS, J.W. & HOOLE, D. (2003) Cadmium-induced cellular and immunological changes in *Cyprinus carpio* infected with the blood fluke *Sanguinicola inermis*. *Journal of Helminthology*, 77, pp. 341-350.

CARTWRIGHT, J.R., THARIA, H.A., BURNS, I., SHRIVE, A.K., HOOLE, D. & GREENHOUGH T.J. (2004) Isolation and characterisation of pentraxin-like serum proteins from common carp *Cyprinus carpio*. *Developmental and Comparative Immunology*, 28, pp. 113-125.

ROBERTS, M.L., LEWIS, J.W. WIEGERTJES, G.F. & HOOLE, D. (2005) Interaction between the blood fluke *Sanguinicola inermis* and humoral components of the immune response of carp, *Cyprinus carpio*. *Parasitology* 131, pp. 261-271.

CARTER, V., PIERCE, R., DUFOUR, S. ARME, C., & HOOLE, D. (2005) The tapeworm *Ligula intestinalis* and puberty in its teleost host, *Rutilus rutilus*. *Reproduction* 130, pp. 939-945.

WIEGERTJES, G.F., STEINHAGEN, D., NIELSEN, M.E., HOOLE, D., WENDELAAR BONGA, S.E. & IRNAZAROW I. (2006) Interactions between parasites and their fish host, *Bulletin of the European Association of Fish Pathologists*, 26, pp. 53-54.

MORLEY, N.J., LEWIS, J.W. & HOOLE, D. (2006) Pollutant-induced effects on immunological and physiological interactions in aquatic host-trematode systems : implications for parasite transmission, *Journal of Helminthology*, 80, pp. 137-149.

MACCARTHY, E., BURNS, I, IRNAZAROW, I., POLWART, A., GREENHOUGH, T.J., SHRIVE, A., & HOOLE, D. (2008) Serum CRP-like protein profile in common carp *Cyprinus carpio* challenged with *Aeromonas hydrophila* and *Escherichia coli* lipopolysaccharide, *Developmental and Comparative Immunology*, 32, pp. 1281-1289.

VIDAL, M, COLS, HOOLE, D. & WILLIAMS, G. T. (2008) Characterisation of cDNA of key genes involved in apoptosis in immune cells of common carp (*Cyprinus carpio* L.), *Fish and Shellfish Immunology*. 25, 494-507.

COLS VIDAL, M, WILLIAMS, G. T. & HOOLE, D. (2009) Characterisation of a carp cell line for analysis of apoptosis, *Developmental and Comparative Immunology*, 33, pp801-805.

KHALIL, M., FURNESS, D.N. POLWART, A. & HOOLE, D. (2009) X-ray microanalysis (EDXMA) of cadmium-exposed eggs of *Bothriocephalus acheliognathi* (Cestoda: Bothriocephalidae) and the influence of this heavy metal on coracidial hatching and activity. *International Journal for Parasitology*, 39, 1093-1098.