

APPENDIX E: P4501A
(Located on the enclosed CD)

This appendix contains the occurrence and intensity scores for all fish and all tissues.

tissue/cell type	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int
sample #			108			109			110			111			112
liver															
hepatocytes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			1			1			1			2			3
gill															
pillar cells	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
kidney															
tubules	2	2	4	0	0	0	1.5	1	1.5	2.5	2	5	1	1	1
vascular endothelium	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gonad (t or o)			o			o			o			o			o
vascular endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut															
mucus epithelium	2.5	3	7.5	2	2	4	2.5	3	7.5	2	2	4	2	1.5	3
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
spleen															
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
parenchyma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	1.5	3	4.5	0	0	0	0	0	0	0	0	0	0	0	0
sample #			113			114			121			122			123
liver							picture								
hepatocytes	0	0	0	0	0	0	3	3	9	2.5	2	5	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation	0	0	2			1			1			2			5
gill			not pres	picture		heavy Trichidona			not pres			not pres			
pillar cells				0	0	0							0	0	0
epithelium				0	0	0							0	0	0
vascular endothelium				0	0	0							0	0	0
kidney												not pres			
tubules	1.5	2	3	1.5	1	1.5	2	1.5	3				2	1	2
vascular endothelium	0	0	0	1.5	2	3	2	2	4				0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	1.5	2	3	0	0	0	0	0	0
gonad (t or o)			o			o			t			t			t
vascular endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut							picture						picture		
mucus epithelium	2	0.5	1	2.5	2	5	1.5	3	4.5	1.5	1	1.5	2	3	6
vascular endothelium	0	0	0	0	0	0	1	2	2	0	0	0	0	0	0
spleen						not pres			not pres						not pres
vascular endothelium	0	0	0							0	0	0			
parenchyma	0	0	0							0	0	0			
heart															
atrial endothelium	0	0	0	0	0	0	1.5	1	1.5	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0
sample #			95			96			70			71			79
liver															
hepatocytes	0	0	0	3	0.5	1.5	3	0.5	1.5	3	3	9	2.5	2	5
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			3			2			2			3			2
gill			heavy Trichidina									not pres			
pillar cells	0	0	0	0	0	0	0	0	0				0	0	0
epithelium	0	0	0	0	0	0	0	0	0				0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0				0	0	0
kidney						not pres						not pres			
tubules	1.5	2	3				1.5	1	1.5				1	0.5	0.5
vascular endothelium	0	0	0				0	0	0				0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gonad (t or o)			o			o			o			t			o
vascular endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut															
mucus epithelium	1.5	2	3	2	0.5	1	2.5	0.5	1.25	2.5	4	10	2	4	8
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
spleen						mac aggs						not pres			
vascular endothelium	0	0	0	0	0	0	0	0	0				0	0	0
parenchyma	0	0	0	0	0	0	0	0	0				0	0	0
heart															
atrial endothelium	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0

tissue/cell type	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int
sample #			80			26			27			28			31
liver															
hepatocytes	3	2	6	0	0	0	3	1	3	3	0.5	1.5	3	0.5	1.5
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			1			2			4			4			1
gill			not pres			not pres			not pres			Trichidina			Trichidina
pillar cells										0	0	0	0	0	0
epithelium										0	0	0	0	0	0
vascular endothelium										0	0	0	0	0	0
kidney									not pres						
tubules	0	0	0												
vascular endothelium	0	0	0												
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gonad (t or o)			o			o			not pres			o			o
vascular endo	0	0	0	0	0	0				0	0	0	0	0	0
gut						not pres			not pres			not pres			not pres
mucus epithelium	2	3	6												
vascular endothelium	0	0	0												
spleen						not pres									
vascular endothelium	0	0	0				0	0	0			not pres			not pres
parenchyma	0	0	0				0	0	0						
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
sample #			32			33			45			46			47
liver															
hepatocytes	3	0.5	1.5	3	3	9	2	1	2	3	1	3	3	2	6
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			3			4			4			4			1
gill			not pres	pict		Trichidina			Trichidina			not pres			
pillar cells				0	0	0	0	0	0				0	0	0
epithelium				0	0	0	0	0	0				0	0	0
vascular endothelium				0	0	0	0	0	0				0	0	0
kidney			not pres			not pres									not pres
tubules							2	3	6	2	3	6			
vascular endothelium							0	0	0	0	0	0			
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gonad (t or o)			o			not pres			not pres			o			o
vascular endo	0	0	0							0	0	0	0	0	0
gut			not pres			not pres			not pres			not pres			not pres
mucus epithelium															
vascular endothelium															
spleen			not pres												
vascular endothelium				0	0	0	0	0	0	0	0	0	0	0	0
parenchyma				0	0	0	0	0	0	0	0	0	0	0	0
heart									not pres						
atrial endothelium	0	0	0	0	0	0				0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0				0	0	0	0	0	0
sample #			48			49			50			115			116
liver										pict		hi vac!	pict		hi vac!
hepatocytes	3	0.5	1.5	3	0.5	1.5	3	2	6	3	0.5	1.5	3	0.5	1.5
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			2			2			2			5			5
gill			Trichidina			Trichidina						not pres			not pres
pillar cells	0	0	0	0	0	0	0	0	0						
epithelium	0	0	0	0	0	0	0	0	0						
vascular endothelium	0	0	0	0	0	0	0	0	0						
kidney												not pres			not pres
tubules	2	2	4	1.5	2	3	2	2	4						
vascular endothelium	0	0	0	0	0	0	0	0	0						
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gonad (t or o)			o			o			o			t			o
vascular endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut			not pres			not pres			not pres						
mucus epithelium										1	1	1	1	1	1
vascular endothelium										0	0	0	0	0	0
spleen															
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
parenchyma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
heart						not pres			not pres						
atrial endothelium	0	0	0							0	0	0	0	0	0
ventricle endothelium	0	0	0							0	0	0	0	0	0

tissue/cell type	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int
sample #			117			118			126			127			128
liver													pict		necrosis
hepatocytes	3	0.5	1.5	0	0	0	3	0.5	1.5	3	0.5	1.5	3	1	3
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			5			5			5			5			5
gill						not pres			not pres			not pres			mac aggs
pillar cells	0	0	0										0	0	0
epithelium	0	0	0										0	0	0
vascular endothelium	0	0	0										0	0	0
kidney			not pres			not pres						not pres			
tubules							1.5	1	1.5				1.5	2	3
vascular endothelium							0	0	0				0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gonad (t or o)			t			o			o			t			o
vascular endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut															
mucus epithelium	0	0	0	1.5	1	1.5	0	0	0	2.5	2	5	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
spleen			not pres												mac aggs
vascular endothelium				0	0	0	0	0	0	0	0	0	0	0	0
parenchyma				0	0	0	0	0	0	0	0	0	0	0	0
heart									not pres						
atrial endothelium	0	0	0	0	0	0				0	0	0	1.5	3	4.5
ventricle endothelium	0	0	0	0	0	0				0	0	0	1.5	3	4.5
sample #			129			130			131			52			
liver															
hepatocytes	3	0.5	1.5	3	0.5	1.5	3	0.5	1.5	3	0.5	1.5			
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0			
bile duct	0	0	0	0	0	0	0	0	0	0	0	0			
vacuolation			5			5			5			1			
gill						not pres									
pillar cells	0	0	0				0	0	0	0	0	0			
epithelium	0	0	0				0	0	0	0	0	0			
vascular endothelium	0	0	0				0	0	0	0	0	0			
kidney			not pres			not pres			not pres						
tubules												not pres			
vascular endothelium										0	0	0			
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0			
gonad (t or o)			t			t			o			t			o
vascular endo	0	0	0	0	0	0	0	0	0	0	0	0			
gut															
mucus epithelium	3	1	3	2.5	1	2.5	2	1.5	3						
vascular endothelium	0	0	0	0	0	0	0	0	0						
spleen			not pres			mac aggs			not pres						
vascular endothelium				0	0	0									
parenchyma				0	0	0									
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0			
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0			
sample #			2			3			4			5			6
liver			np												
hepatocytes				0	0	0	3	0.25	0.75	3	1	3	3	0.5	1.5
vascular endothelium				0	0	0	0	0	0	0	0	0	0	0	0
bile duct				0	0	0	0	0	0	0	0	0	0	0	0
vacuolation						1			1			3			1
gill															
pillar cells	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ovary endo															0
kidney															
tubules	0	0	0	0	0	0			np	2	1	2	2	1.5	3
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

tissue/cell type	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int
sample #			7			8			9			10			36
liver															
hepatocytes	0	0	0	3	0.5	1.5	3	0.5	1.5	0	0	0	3	0.5	1.5
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			1			1			1			2			1
gill															
pillar cells	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
kidney															
tubules	0	0	0	0	0	0	2	0.5	1	1.5	0.5	0.75	1	0.5	0.5
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
skin/muscle vasc endo			np	0	0	0	0	0	0	0	0	0	0	0	0
ovary	0	0	0	0	0	0									
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
testes													0	0	0
sample #			37			53			54			67			68
liver															
hepatocytes	0	0	0	3	0.25	0.75	3	0.5	1.5	3	0.5	1.5	3	0.5	1.5
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			1			2			2			2			1
gill												np			
pillar cells	0	0	0	0	0	0	0	0	0				0	0	0
epithelium	0	0	0	0	0	0	0	0	0				0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0				0	0	0
kidney						np			np			np			np
tubules	2	1	2												
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ovary	0	0	0				0	0	0	0	0	0			
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
testes				0	0	0									
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut epith				0	0	0				0	0	0	0	0	0
gut vasc endo				0	0	0				0	0	0	0	0	0
sample #			69			81			82			102			103
liver															
hepatocytes	0	0	0	3	0.25	0.75	3	0.25	0.75	3	0.25	0.75	3	0.5	1.5
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			1			1			2.5			3			3
gill									heavy parasites						
pillar cells	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
kidney															
tubules			np							0	0	0			np
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
testes							0	0	0	0	0	0	0	0	0
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut epith							0	0	0	0	0	0	0	0	0
gut vasc endo							0	0	0	0	0	0	0	0	0
sample #			104			105									
liver															
hepatocytes	3	0.25	0.75	0	0	0									
vascular endothelium	0	0	0	0	0	0									
bile duct	0	0	0	0	0	0									
vacuolation			4			2.5									
gill															
pillar cells	0	0	0	0	0	0									
epithelium	0	0	0	0	0	0									
vascular endothelium	0	0	0	0	0	0									
kidney															
tubules			np			np									
vascular endothelium	0	0	0	0	0	0									
ovary				0	0	0									
skin/muscle vasc endo	0	0	0	0	0	0									
testes	0	0	0												
heart															
atrial endothelium	0	0	0	0	0	0									
ventricle endothelium	0	0	0	0	0	0									
gut epith	0	0	0												
gut vasc endo	0	0	0												

tissue/cell type	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int
sample #			83			84			85			86			87
liver/sex			f			m			m			m			m
hepatocytes	3	0.5	1.5	3	1	3	3	1	3	3	0.5	1.5	3	0.5	1.5
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			3			2			2			4			2
gill									np						
pillar cells	0	0	0	0	0	0				0	0	0	0	0	0
epithelium	0	0	0	0	0	0				0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0				0	0	0	0	0	0
kidney															
tubules			np			np			np			np			np
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut epith	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut vasc endo	2	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0
ovary/testes vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
sample #			88			97			98			99			100
liver			f			m			f			m			m
hepatocytes	3	0.5	1.5	0	0	0	0	0	0	0	0	0	3	0.5	1.5
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	1
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			4			3			3			1			1
gill									hyperplasia						
pillar cells	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
kidney															
tubules			np			np			np			np	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut epith	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ovary/testes vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
sample #			12			13			14			15			16
liver			m						m			f			m
hepatocytes	3	1	3	0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			1			1			2			1			1
gill															
pillar cells	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
kidney															
tubules	2	1	2	0	0	0									
vascular endothelium	0	0	0	0	0	0				0	0	0			
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut epith										0	0	0			
gut vasc endo										0	0	0			
ovary/testes vasc endo	0	0	0				0	0	0	0	0	0	0	0	0
spleen				0	0	0	0	0	0				0	0	0
sample #			17			18			19			20			21
liver			m			f			f			m			m
hepatocytes	0	0	0	0	0	0	0	0	0	3	0.5	1.5	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			2			1			1			1			3
gill															
pillar cells	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
epithelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
kidney															
tubules															
vascular endothelium															
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut epith															
gut vasc endo															
ovary/testes vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
spleen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

tissue/cell type	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int
sample #			22			23			24			27 (liver photos)			55 (liver photo)
liver			m			m			f			m			f
hepatocytes	0	0	0	0	0	0				2	2.5	5	0	0	0
vascular endothelium	0	0	0	0	0	0				0	0	0	0	0	0
bile duct	0	0	0	0	0	0				0	0	0	2.5	2	5
vacuolation			1			4				3/4 areas of highly vacu					1 (bile can. stng)
gill									trich						
pillar cells	0	0	0	0	0	0	0	0	0						
epithelium	0	0	0	0	0	0	0	0	0						
vascular endothelium	0	0	0	0	0	0	0	0	0						
kidney															
tubules				0	0	0									
vascular endothelium				0	0	0							0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut epith				0	0	0									
gut vasc endo				0	0	0									
ovary/testes vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
spleen	0	0	0				0	0	0						
sample #			56			61 photo			64			65			66
liver			m			f			f			f			f
hepatocytes	2	2	4	2	1	2	0	0	0	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vacuolation			1			2/5 apop region?			3			1			1
gill															
pillar cells				0	0	0	0	0	0	0	0	0	0	0	0
epithelium				0	0	0	0	0	0	0	0	0	0	0	0
vascular endothelium				0	0	0	0	0	0	0	0	0	0	0	0
kidney															
tubules				0	0	0									
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
skin/muscle vasc endo	0	0	0				0	0	0				0	0	0
heart															
atrial endothelium	0	0	0	2	3	6	0	0	0	0	0	0	0	0	0
ventricle endothelium	0	0	0	2	3	6	0	0	0	0	0	0	0	0	0
gut epith	0	0	0	1.5	3	4.5	0	0	0	0	0	0	0	0	0
gut vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ovary/testes vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
spleen	0	0	0				0	0	0						
sample #			75			76			77			89 (photo)			90
liver			m						f			f			f
hepatocytes	0	0	0	3	0.25	0.75	2	2	4	0	0	0	0	0	0
vascular endothelium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bile duct	0	0	0	2	1	2	2	1	2	0	0	0	0	0	0
vacuolation			1			1 (bile can. stng)			1 (bile can. stng)			5			5
gill															
pillar cells	0	0	0	0	0	0				0	0	0			
epithelium	0	0	0	0	0	0				0	0	0			
vascular endothelium	0	0	0	0	0	0				0	0	0			
kidney															
tubules													0	0	0
vascular endothelium	0	0	0				0	0	0	0	0	0	0	0	0
skin/muscle vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
heart															
atrial endothelium	0	0	0	0	0	0	0	0	0				0	0	0
ventricle endothelium	0	0	0	0	0	0	0	0	0				0	0	0
gut epith	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
gut vasc endo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ovary/testes vasc endo	0	0	0				0	0	0	0	0	0	0	0	0
spleen							0	0	0						

tissue/cell type	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int	Occ	Int	Occ X Int
sample #			91			92									
liver			f			f									
hepatocytes	0	0	0	0	0	0									
vascular endothelium	0	0	0	0	0	0									
bile duct	0	0	0	0	0	0									
vacuolation			5			5									
gill															
pillar cells	0	0	0												
epithelium	0	0	0												
vascular endothelium	0	0	0												
kidney															
tubules	0	0	0	0	0	0									
vascular endothelium	0	0	0	0	0	0									
skin/muscle vasc endo	0	0	0	0	0	0									
heart															
atrial endothelium	0	0	0	0	0	0									
ventricle endothelium	0	0	0	0	0	0									
gut epith	0	0	0												
gut vasc endo	0	0	0												
ovary/testes vasc endo	0	0	0	0	0	0									
spleen	0	0	0	0	0	0									
sample #			101												
liver			m												
hepatocytes	3	1	3												
vascular endothelium	0	0	0												
bile duct	0	0	0												
vacuolation			4												
gill															
pillar cells	0	0	0												
epithelium	0	0	0												
vascular endothelium	0	0	0												
kidney															
tubules			np												
vascular endothelium	0	0	0												
skin/muscle vasc endo	0	0	0												
heart															
atrial endothelium	0	0	0												
ventricle endothelium	0	0	0												
gut epith	0	0	0												
gut vasc endo	0	0	0												
ovary/testes vasc endo	0	0	0												