

**Hylebos Waterway Fish Injury Studies
Individual Data and Quality Assurance Results
CASE NARRATIVE**

**Reproductive Injury in Flatfish
Ovarian Histopathology**

Histopathologist's qualifications

Histologic sections of gonad from individual fish were examined by three histopathologists (Mark Myers, Carla Stehr, Paul Olson) with at least three years of experience in the histopathologic examination of English sole and rock sole. The latter two examiners have completed a one-year training program under the direction of the chief pathologist, Mark S. Myers. Each histopathologist examined approximately 33% of the total number of cases.

Diagnostic criteria

Criteria for microscopic lesion diagnosis were adopted from comparative pathology textbooks (Robbins, Cotran, and Kumar, 1984) and various publications in fish histopathology (Myers et al., 1987; Moore and Myers, 1994; Johnson et al., 1991; Hinton et al., 1992).

Histologic slide labeling

All histologic slides were labeled with a random number code so that the geographic site of capture was not known to the examiner.

Internal quality control procedures for histologic slide examination

For histologic slides examined by Carla Stehr and Paul Olson affected with suspected or diagnosed liver lesions, or where liver lesion diagnosis was not obvious, all tissues, including ovaries, were re-examined by the chief pathologist, Mark Myers. Additionally, ovaries from 20 additional specimen were chosen at random for re-examination. Out of the approximately 269 tissues sections of gonad examined (from 269 individual English sole), 38 tissue sections or 14% of samples were re-examined by the chief pathologist. The original and final, confirmed diagnoses for these re-examined individual cases are set forth in Table 1.

Coding of diagnoses into database

Each final histopathologic diagnosis was entered into the database by the examining histopathologist, using a lesion coding system developed at the Northwest Fisheries Science Center. Lesion categories include the following:

- atresia of yolker oocytes
- atresia of non-yolker oocytes
- late stage atresia
- inflammation in the ovary

Missing data

Occasionally the cassette used to hold tissues from individual fish will open up in the fixative container, resulting in the loss of the tissue; also, in the necropsy procedure, occasionally tissues are inadvertently not collected. Infrequent labeling errors may also occur during the handling of a large number of fish. If the tissue is lost, or there is a question about the labeling, lesion information is not used, and missing data for a particular tissue is indicated by a blank record. Specimens collected for these studies, but where histopathology data is not available are:

943374, 943531, 943562, 943742, 943806, 943843, 943281, 943293, 043296, 943572, 943651, 943732, 943761, 943806, 943843

Otoliths are sometimes lost or damaged during collection; therefore age data cannot be obtained. This missing data is indicated by a blank record. Fish where we were unable to obtain age data were specimens 943350 and 943649.

Sequential gaps in the specimen numbers do not represent missing fish. Those specimens listed in Table 2 are female English sole reported in the Reproductive Injury study. Specimen number not listed were either reported in the Toxicopathic Injury study, or assigned to other projects.

Revisions 2/24/97

The data presented in this case narrative were previously included in with liver and kidney data as part of the Toxicopathic Injury study case narrative submitted on 5/30/96. However, since detailed data on the histopathology of ovarian lesions in English sole is only reported in the Reproductive Injury Interpretive Report, this information now appears here in a separate document. In addition to information on ovarian lesion occurrence, this case narrative also includes ovarian lesion severity rankings. Data on ovarian Quality Assurance has been expanded; slides from 20 additional female English sole collected specifically for the Reproductive Injury study were randomly selected and reread by the chief pathologist. No additional changes to lesion diagnoses or other information contained in the case narrative were made.

**Documentation and Abbreviations for Tables 1 and 2
Ovarian Histopathology Data
for Hylebos Flatfish Reproductive Injury Study**

This case narrative includes ovarian histopathology for flatfish collected during the Reproductive Injury Study of the Hylebos Fish Injury Studies, Phase I. Other histopathology data for these fish are presented in for liver and kidney histopathology case narrative for flatfish collected during the Toxicopathic and Reproductive Injury Studies.

Notes and Abbreviations

Date collected - data fish were caught, and tissue samples collected

Reader - indicates last name of the person who read the histopathology slides for that specimen number. A blank record occurs when no tissue sections were available to be read for that specimen.

Ovary lesions

YATR = early stage (alpha) atresia of yolked oocytes

YATRsev = severity rating for early stage atresia. of yolked oocytes

NYATR = early stage (alpha) atresia of non-yolked oocytes

NYATRsev = severity rating for early stage atresia. of non-yolked oocytes

LATR = late stage atresia, (can't distinguish yolked from non-yolked at this stage)

LATRsev severity rating for late stage atresia

OVINFL = inflammation in the ovary

OVINFLsev = severity rating for inflammation in the ovary

Gonad stages

OVSTAGE = stage of maturation of the ovary

Age:

Actual years of age as indicated by growth rings on otoliths.

Blank records indicate no age data available; otoliths lost or damaged.

Sex:

1 = male

2 = female

Length: total length, reported in millimeters

Weight: total weight, reported in grams

Explanation of codes

Presence or absence of lesions:

0= tissue examined, no lesion observed

1= tissue examined, lesion observed

blank = tissue not examined

Lesion severity:

0 = absent

1 = minimal, sparse, very few

2 = minimal to mild

3 = mild, few

4 = mild to moderate, several

5 = moderate, moderate number

6 = moderate to severe

7 = severe, abundant, numerous, dense

8 = excessive amount or number, excessively dense blank = tissue not examined

Stage of Maturation of the Ovary

1 = regressed; oogonia and primary oocytes

2 = late regressed; secondary oocytes

3 = previtellogenic; vacuolated secondary oocytes

4 = vitellogenic

5 = some hydrated oocytes; no post-ovulatory follicles (POFs)

6 = spawning; hydrated oocytes with POFs

7 = spawned out

8 = equivocal spawn out; characteristics of spent fish but no identifiable POFs

Table 1. Ovarian Pathology Cases Subjected to Quality Assurance, Hylebos Damage Assessment

Spec. #	Species	Reader	Original Diagnoses	Post QA Final Diagnoses
94-3273	English sole	Stehr	Ovary: stage 4; late stage atresia 2/1; alpha atresia, yolked 2/1	Ovary: stage 4; late stage atresia 2/1; alpha atresia, yolked 3/1
94-3284	English sole	Olson	Ovary: stage 3; alpha atresia, non-yolked 1/1	Ovary: stage 3; alpha atresia, non-yolked 1/1
94-3294	English sole	Stehr	Ovary: stage 3; late stage atresia 1/2; microsporidians	Ovary: stage 3; late stage atresia 1/1; microsporidians
94-3302	English sole	Stehr	Ovary: stage 4	Ovary: stage 4
94-3303	English sole	Stehr	Ovary: stage 3	Ovary: stage 3
94-3306	English sole	Stehr	Ovary: stage 3	Ovary: stage 3
94-3366	English sole	Stehr	Ovary: stage 4	Ovary: stage 4
94-3369	English sole	Olson	Ovary: stage 3; serosal larval trematodes; alpha atresia, non-yolked, 1/1	Ovary: stage 3; serosal larval trematodes; alpha atresia, non-yolked, 1/1
94-3383	English sole	Olson	Ovary: stage 4	Ovary: stage 4
94-3398	English sole	Olson	Ovary: stage 3	Ovary: stage 3
94-3408	English sole	Olson	Ovary: stage 4	Ovary: stage 4
94-3415	English sole	Olson	Ovary: stage 4; alpha atresia, yolked 1/1	Ovary: stage 4; alpha atresia, yolked 2/2
94-3466	English sole	Stehr	Ovary: stage 4	Ovary: stage 4
94-3515	English sole	Stehr	Ovary: stage 4	Ovary: stage 4
94-3525	English sole	Olson	Ovary: stage 4; alpha atresia, yolked 1/1	Ovary: stage 4; alpha atresia, yolked 1/1
94-3535	English sole	Olson	Ovary: stage 2; alpha atresia, non-yolked 4/4	Ovary: stage 2; alpha atresia, non-yolked 3/4
94-3541	English sole	Olson	Ovary: stage 3; alpha atresia, non-yolked 2/1	Ovary: stage 3; alpha atresia, non-yolked 2/1
94-3565	English sole	Olson	Ovary: stage 4; alpha atresia, yolked 1/1	Ovary: stage 4; alpha atresia, yolked 1/1
94-3574	English sole	Stehr	Ovary: stage 4	Ovary: stage 4
94-3575	English sole	Olson	Ovary: stage 3; late stage atresia 3/3; alpha atresia, non-yolked 4/4	Ovary: stage 3; late stage atresia 3/3; alpha atresia, non-yolked 4/4
94-3576	English sole	Olson	Ovary: stage 4	Ovary: stage 4
94-3577	English sole	Olson	Ovary: stage 4; late stage atresia 2/1; alpha atresia, yolked 3/3; alpha atresia, non-yolked 1/1	Ovary: stage 4; late stage atresia 1/1; alpha atresia, yolked 3/2; alpha atresia, non-yolked 1/1
94-3586	English sole	Stehr	Ovary: stage 3; late stage atresia 2/1	Ovary: stage 3; late stage atresia 2/1
94-3588	English sole	Olson	Ovary: stage 3, atresia	Ovary: stage 3, atresia
94-3590	English sole	Stehr	Ovary: stage 4	Ovary: stage 4
94-3617	English sole	Stehr	Ovary: stage 4; alpha atresia, yolked 4/2; alpha atresia, non-yolked 4/2	Ovary: stage 4; alpha atresia, yolked 2/2; alpha atresia, non-yolked 3/2

Table 1. Ovarian Pathology Cases Subjected to Quality Assurance, Hylebos Damage Assessment

Spec. #	Species	Reader	Original Diagnoses	Post QA Final Diagnoses
94-3632	English sole	Stehr	Ovary: stage 7; post ovulatory follicles (POFs) 4/3; late stage atresia, yolked 1/1; late stage atresia, non-yolked 4/2	Ovary: stage 7; post ovulatory follicles (POFs) 4/3; late stage atresia, yolked 1/1; late stage atresia, non-yolked 4/2
94-3636	English sole	Olson	Ovary: stage 4; alpha atresia, yolked 5/6; alpha atresia, non-yolked 3/2	Ovary: stage 4; alpha atresia, yolked 5/6; alpha atresia, non-yolked 3/2
94-3655	English sole	Olson	Ovary: stage 4; alpha atresia, yolked 4/5; alpha atresia, non-yolked 2/2; late stage atresia 1/1	Ovary: stage 4; alpha atresia, yolked 3/5; alpha atresia, non-yolked 3/3; late stage atresia 2/1
94-3683	English sole	Stehr	Ovary: stage 4; alpha atresia, yolked 1/1; late stage atresia 1/1	Ovary: stage 4; alpha atresia, yolked 3/2; late stage atresia 2/1
94-3722	English sole	Olson	Ovary: stage 4; alpha atresia, non-yolked 3/2	Ovary: stage 4; alpha atresia, non-yolked 3/2
94-3724	English sole	Stehr	Ovary: stage 2; late stage atresia 1/1	Ovary: stage 2; late stage atresia 1/1
94-3764	English sole	Stehr	Ovary: stage 7; POFs 4/4; late stage atresia 3/3	Ovary: stage 7; POFs 4/4; late stage atresia 3/3
94-3766	English sole	Stehr	Ovary: stage 7; POFs 2/2; late stage atresia 3/2; alpha atresia, non-yolked 2/1	Ovary: stage 7; POFs 2/2; late stage atresia 2/1; alpha atresia, non-yolked 3/2
94-3774	English sole	Olson	Ovary: stage 8; alpha atresia, yolked 2/1; late stage atresia 3/2	Ovary: stage 8; alpha atresia, yolked 2/1; late stage atresia 3/2
94-3829	English sole	Stehr	Ovary: stage 7; POFs 4/2; late stage atresia 3/6	Ovary: stage 7; POFs 4/2; late stage atresia 3/6
94-3830	English sole	Stehr	Ovary: stage 7; POFs 4/5; late stage atresia 4/4	Ovary: stage 7; POFs 4/5; late stage atresia 4/4
94-3841	English sole	Olson	Ovary: stage 2; alpha atresia, yolked 3/2	Ovary: stage 2; alpha atresia, yolked 2/2

Table 2.
Ovarian Histopathology Data for Reproductive Injury Study

Reader	Site	Specimen #	Date collected	Sex	Length, mm	Weight, g	Age	Species	OVSTAGE	YATR	YATRsev	NYATR	NYATRsev	LATR	LATRsev	OVINFL	OVINFLsev
Myers	Colvos	943524	12/2/94	2	297	214	4	English	3	0	0	1	1	0	0	0	0
Olson	Colvos	943525	12/2/94	2	352	353	9	English	4	1	1	0	0	0	0	1	3
Myers	Colvos	943526	12/2/94	2	271	173	3	English	2	0	0	1	3	0	0	0	0
Myers	Colvos	943527	12/2/94	2	295	262	5	English	4	1	2	0	0	0	0	0	0
Stehr	Colvos	943529	12/2/94	2	340	380	7	English	4	0	0	0	0	0	0	0	0
Stehr	Colvos	943530	12/2/94	2	280	199	3	English	2	0	0	1	5	0	0	0	0
	Colvos	943531	12/2/94	2	300	242	3	English									
	Colvos	943532	12/2/94	2	286	195	3	English									
Myers	Colvos	943533	12/2/94	2	351	416	10	English	4	0	0	0	0	0	0	0	0
Myers	Colvos	943534	12/2/94	2	306	254	6	English	4	0	0	0	0	0	0	0	0
Olson	Colvos	943535	12/2/94	2	279	188	3	English	2	0	0	1	4	0	0	1	3
Olson	Colvos	943536	12/2/94	2	295	242	6	English	3	0	0	1	1	0	0	0	0
Myers	Colvos	943537	12/2/94	2	301	236	3	English	4	1	2	0	0	0	0	0	0
Myers	Colvos	943538	12/2/94	2	294	236	4	English	4	0	0	0	0	0	0	0	0
Myers	Colvos	943539	12/2/94	2	277	180	3	English	2	0	0	1	3	0	0	0	0
Olson	Colvos	943540	12/2/94	2	295	216	5	English	4	1	3	1	3	1	1	0	0
Olson	Colvos	943541	12/2/94	2	301	219	3	English	3	0	0	1	1	0	0	1	1
Olson	Colvos	943542	12/2/94	2	283	188	3	English	8	0	0	1	1	0	0	0	0
Myers	Colvos	943543	12/2/94	2	290	192	3	English	3	0	0	1	3	0	0	0	0
Myers	Colvos	943544	12/2/94	2	285	172	3	English	3	0	0	1	2	0	0	0	0
Stehr	Hylebos	943546	12/5/94	2	355	433	5	English	4	0	0	0	0	0	0	0	0
Olson	Hylebos	943548	12/5/94	2	305	250	5	English	4	0	0	0	0	1	1	1	2
Olson	Hylebos	943550	12/5/94	2	265	174	3	English	4	0	0	0	0	0	0	0	0
Myers	Hylebos	943552	12/5/94	2	305	249	8	English	4	1	2	0	0	0	0	0	0
Myers	Hylebos	943554	12/5/94	2	342	348	5	English	3	0	0	0	0	0	0	0	0
Myers	Hylebos	943558	12/5/94	2	310	301	4	English	4	0	0	0	0	0	0	0	0
Myers	Hylebos	943560	12/5/94	2	400	514	5	English	4	1	1	0	0	0	0	0	0
	Hylebos	943562	12/5/94	2	356	401	10	English									
Myers	Hylebos	943564	12/5/94	2	330	338	7	English	4	0	0	0	0	0	0	0	0
Olson	Hylebos	943565	12/5/94	2	382	569	5	English	4	1	1	0	0	0	0	0	0
Stehr	Hylebos	943566	12/5/94	2	289	217	3	English	3	0	0	0	0	0	0	0	0
Stehr	Hylebos	943567	12/5/94	2	289	228	3	English	4	0	0	0	0	0	0	0	0
Stehr	Hylebos	943568	12/5/94	2	252	152	3	English	4	0	0	0	0	0	0	0	0
Myers	Hylebos	943569	12/5/94	2	328	325	4	English	4	1	1	0	0	0	0	0	0
	Hylebos	943572	12/6/94	2	274	167	6	English									
Stehr	Hylebos	943574	12/6/94	2	304	270	5	English	4	0	0	0	0	0	0	0	0
Olson	Hylebos	943575	12/6/94	2	365	406	6	English	3	0	0	1	4	1	3	1	3
Olson	Hylebos	943576	12/6/94	2	285	203	3	English	4	0	0	0	0	0	0	1	2
Olson	Hylebos	943577	12/6/94	2	297	258	3	English	4	1	3	1	1	1	1	0	0
Stehr	Hylebos	943578	12/6/94	2	247	131	1	English	2	0	0	0	0	1	1	0	0

Table 2.
Ovarian Histopathology Data for Reproductive Injury Study

Reader	Site	Specimen #	Date collected	Sex	Length	Weight	Age	Species	OVSTAGE	YATR	YATRsev	NYATR	NYATRsev	LATR	LATRsev	OVINFL	OVINFLsev
Stehr	Calvos	943652	1/6/95	2	226	335	7	English	4	0	0	0	0	0	0	0	0
Myers	Calvos	943653	1/6/95	2	343	329	8	English	4	1	2	0	0	0	0	0	0
Olson	Calvos	943654	1/6/95	2	285	193	5	English	4	1	1	0	0	0	0	0	0
Olson	Calvos	943655	1/6/95	2	358	385	7	English	4	1	5	1	2	1	1	0	0
Myers	Calvos	943656	1/6/95	2	325	299	7	English	4	1	1	0	0	0	0	0	0
Myers	Calvos	943657	1/6/95	2	310	252	7	English	2	0	0	1	4	0	0	0	0
Stehr	Calvos	943658	1/6/95	2	328	322	5	English	4	0	0	0	0	0	0	0	0
Olson	Calvos	943659	1/6/95	2	340	368	8	English	4	1	3	1	1	1	2	0	0
Myers	Calvos	943660	1/6/95	2	305	274	8	English	4	1	3	0	0	0	0	0	0
Olson	Calvos	943661	1/6/95	2	328	283	7	English	5	1	8	0	0	0	0	1	4
Myers	Calvos	943662	1/6/95	2	345	388	7	English	4	1	2	0	0	0	0	0	0
Myers	Calvos	943663	1/6/95	2	308	243	6	English	4	0	0	0	0	0	0	0	0
Stehr	Calvos	943664	1/6/95	2	285	189	4	English	6	0	0	0	0	1	2	0	0
Myers	Calvos	943666	1/6/95	2	297	208	5	English	2	0	0	1	3	0	0	0	0
Stehr	Calvos	943667	1/6/95	2	298	232	4	English	4	0	0	1	3	0	0	0	0
Olson	Calvos	943669	1/6/95	2	295	229	7	English	4	1	1	1	1	0	0	1	1
Myers	Calvos	943670	1/6/95	2	280	220	4	English	4	1	2	0	0	0	0	0	0
Myers	Calvos	943671	1/6/95	2	280	168	4	English	2	0	0	1	1	0	0	0	0
Olson	Calvos	943672	1/6/95	2	299	213	4	English	2	0	0	1	2	0	0	1	2
Myers	Calvos	943681	1/9/95	2	295	238	5	English	4	1	3	0	0	0	0	0	0
Stehr	Calvos	943682	1/9/95	2	375	470	7	English	4	1	3	0	0	1	1	0	0
Stehr	Calvos	943683	1/9/95	2	350	360	7	English	4	1	1	0	0	1	1	0	0
Stehr	Calvos	943684	1/9/95	2	315	276	7	English	4	1	3	0	0	0	0	0	0
Myers	Calvos	943685	1/9/95	2	310	220	4	English	2	0	0	1	1	0	0	0	0
Stehr	Calvos	943687	1/9/95	2	305	250	5	English	4	1	2	0	0	0	0	0	0
Olson	Calvos	943688	1/9/95	2	320	305	7	English	4	1	4	1	2	1	2	0	0
Myers	Calvos	943689	1/9/95	2	340	260	6	English	2	0	0	1	4	0	0	0	0
Myers	Calvos	943690	1/9/95	2	285	145	3	English	7	0	0	0	0	0	0	0	0
Myers	Hylebos	943716	2/7/95	2	291	192	6	English	2	0	0	0	0	1	2	0	0
Myers	Hylebos	943717	2/7/95	2	328	373	6	English	4	1	2	0	0	0	0	0	0
Stehr	Hylebos	943719	2/7/95	2	347	338	6	English	2	0	0	0	0	0	0	0	0
Myers	Hylebos	943720	2/7/95	2	346	354	11	English	2	0	0	1	5	1	4	0	0
Olson	Hylebos	943722	2/7/95	2	342	374	11	English	4	0	0	1	2	0	0	0	0
Stehr	Hylebos	943724	2/7/95	2	341	286	9	English	2	0	0	0	0	1	1	0	0
Stehr	Hylebos	943725	2/7/95	2	293	188	6	English	2	0	0	0	0	0	0	0	0
Myers	Hylebos	943726	2/7/95	2	344	345	5	English	2	0	0	0	0	0	0	0	0
Hylebos	Hylebos	943732	2/7/95	2	305	262	4	English									
Olson	Hylebos	943737	2/8/95	2	330	287	9	English	2	0	0	1	4	0	0	1	7
Myers	Hylebos	943738	2/8/95	2	338	344	13	English	2	0	0	0	0	1	1	0	0
Olson	Hylebos	943739	2/8/95	2	337	335	8	English	4	1	2	1	1	1	4	1	5

Table 2.
Ovarian Histopathology Data for Reproductive Injury Study

Reader	Site	Specimen #	Date collected	Sex	length_mm	Weight_g	Age	Species	OVSTAGE	YATR	YATRsev	NVATR	NVATRsev	LATR	LATRsev	OVINFL	OVINFLsev
Olson	Hylebos	943740	2/8/95	2	300	278	5	English	2	0	0	0	0	0	0	1	3
Myers	Hylebos	943741	2/8/95	2	305	254	6	English	2	0	0	1	2	0	0	0	0
	Hylebos	943742	2/8/95	2	332	281	7	English									
Olson	Hylebos	943743	2/8/95	2	278	161	8	English	2	0	0	0	0	0	0	1	3
Myers	Hylebos	943744	2/8/95	2	318	304	8	English	4	1	3	0	0	0	0	0	0
Olson	Hylebos	943745	2/8/95	2	292	246	4	English	8	1	3	0	0	0	0	0	0
Olson	Hylebos	943756	4/4/95	2	321	286	10	English	3	0	0	1	1	1	5	1	4
	Hylebos	943761	4/4/95	2	340	304	10	English									
Olson	Hylebos	943762	4/4/95	2	371	430	7	English	3	0	0	1	2	0	0	1	5
Stehr	Hylebos	943764	4/4/95	2	301	226	8	English	7	0	0	0	0	1	3	0	0
Stehr	Hylebos	943766	4/4/95	2	400	539	12	English	7	0	0	1	1	1	2	0	0
Myers	Hylebos	943768	4/4/95	2	382	370	7	English	7	0	0	0	0	0	0	0	0
Olson	Hylebos	943769	4/4/95	2	360	335	6	English	2	0	0	0	0	0	0	0	0
Olson	Hylebos	943771	4/4/95	2	319	281	7	English	2	0	0	1	1	0	0	1	4
Olson	Hylebos	943774	4/4/95	2	321	303	7	English	8	1	1	0	0	1	3	1	2
Myers	Hylebos	943775	4/4/95	2	289	210	5	English	2	0	0	0	0	0	0	0	0
Myers	Hylebos	943780	4/5/95	2	321	258	4	English	2	0	0	0	0	0	0	0	0
Olson	Hylebos	943783	4/5/95	2	357	390	10	English	2	1	1	0	0	1	1	1	7
Olson	Hylebos	943793	4/5/95	2	345	342	8	English	2	1	1	0	0	0	0	0	0
Stehr	Hylebos	943794	4/5/95	2	368	367	9	English	7	0	0	0	0	1	3	0	0
Myers	Hylebos	943795	4/5/95	2	329	299	8	English	7	0	0	0	0	0	0	0	0
Olson	Hylebos	943803	4/5/95	2	350	341	12	English	2	0	0	0	0	0	0	1	5
Olson	Hylebos	943805	4/5/95	2	300	325	8	English	8	0	0	1	1	0	0	1	3
	Hylebos	943806	4/5/95	2	319	248	7	English									
Stehr	Colvos	943829	4/6/95	2	345	320	16	English	7	0	0	0	0	1	6	0	0
Stehr	Colvos	943830	4/6/95	2	307	241	8	English	7	0	0	0	0	1	4	0	0
Stehr	Colvos	943831	4/6/95	2	344	331	10	English	7	0	0	0	0	1	5	0	0
Myers	Colvos	943832	4/6/95	2	280	169	3	English	2	1	2	0	0	0	0	0	0
Stehr	Colvos	943834	4/6/95	2	277	169	5	English	2	0	0	0	0	0	0	0	0
Olson	Colvos	943835	4/6/95	2	277	164	3	English	2	1	4	1	1	0	0	1	2
Myers	Colvos	943836	4/6/95	2	265	136	5	English	2	0	0	1	1	0	0	0	0
Stehr	Colvos	943838	4/6/95	2	341	294	13	English	2	0	0	1	2	1	4	0	0
Olson	Colvos	943839	4/6/95	2	362	378	6	English	2	1	2	0	0	0	0	1	3
Myers	Colvos	943840	4/6/95	2	292	195	4	English	7	1	1	0	0	0	0	0	0
Olson	Colvos	943841	4/6/95	2	335	311	8	English	2	1	2	0	0	0	0	0	0
Myers	Colvos	943842	4/6/95	2	290	180	3	English	2	0	0	0	0	0	0	0	0
	Colvos	943843	4/6/95	2	365	345	12	English									
Olson	Colvos	943844	4/6/95	2	307	212	5	English	2	1	3	0	0	0	0	0	0
Olson	Colvos	943845	4/6/95	2	304	233	7	English	2	0	0	0	0	1	2	1	2
Olson	Colvos	943846	4/6/95	2	376	437	8	English	7	1	4	0	0	0	0	0	0

Table 2.
Ovarian Histopathology Data for Reproductive Injury Study

Reader	Site	Specimen #	Date collected	Sex	Length mm	Weight g	Age	Species	OVSTAGE	YATR	YATRrev	NYATR	NYATRrev	LATR	LATRrev	OVINFL	OVINFLrev
Myers	Cotvos	943847	4/6/95	2	284	181	3	English	2	0	0	0	0	0	0	0	0
Myers	Cotvos	943848	4/6/95	2	291	197	4	English	2	0	0	0	0	0	0	0	0
Myers	Cotvos	943855	4/6/95	2	250	117	3	English	2	0	0	1	3	0	0	0	0