



USFWS National Abnormal Amphibian Program

SITE CHARACTERIZATION FORM

Refuge : Coldwater River NWR Collectors : Becky Rosamond
 Date : 6/12/2008 Hall Mitchell
 Site ID : R4-CWR01 Mark Williams

Start Time : 13:08 Air (°C) : 32 Weather : Scattered clouds
 End Time : 14:00 H₂O (°C) : _____

Datum : NA027 WGS 84 decimal degrees (hddd.ddddd°) Elevation (+/- m) : _____
 Latitude : N 34° 05.299' Make of GPS unit : Garmin
 Longitude : W 90° 08.123' Model of GPS unit : III+

Describe where coordinates were taken in relation to wetland :
Western levee (Water control structure)

Area (m²) : _____ Water level (select from) : deep shallow drying dried up
 (> 3ft in some areas) (< 3ft throughout) (between 3 ft and dry) (no water)
 % Canopy Cover: 0

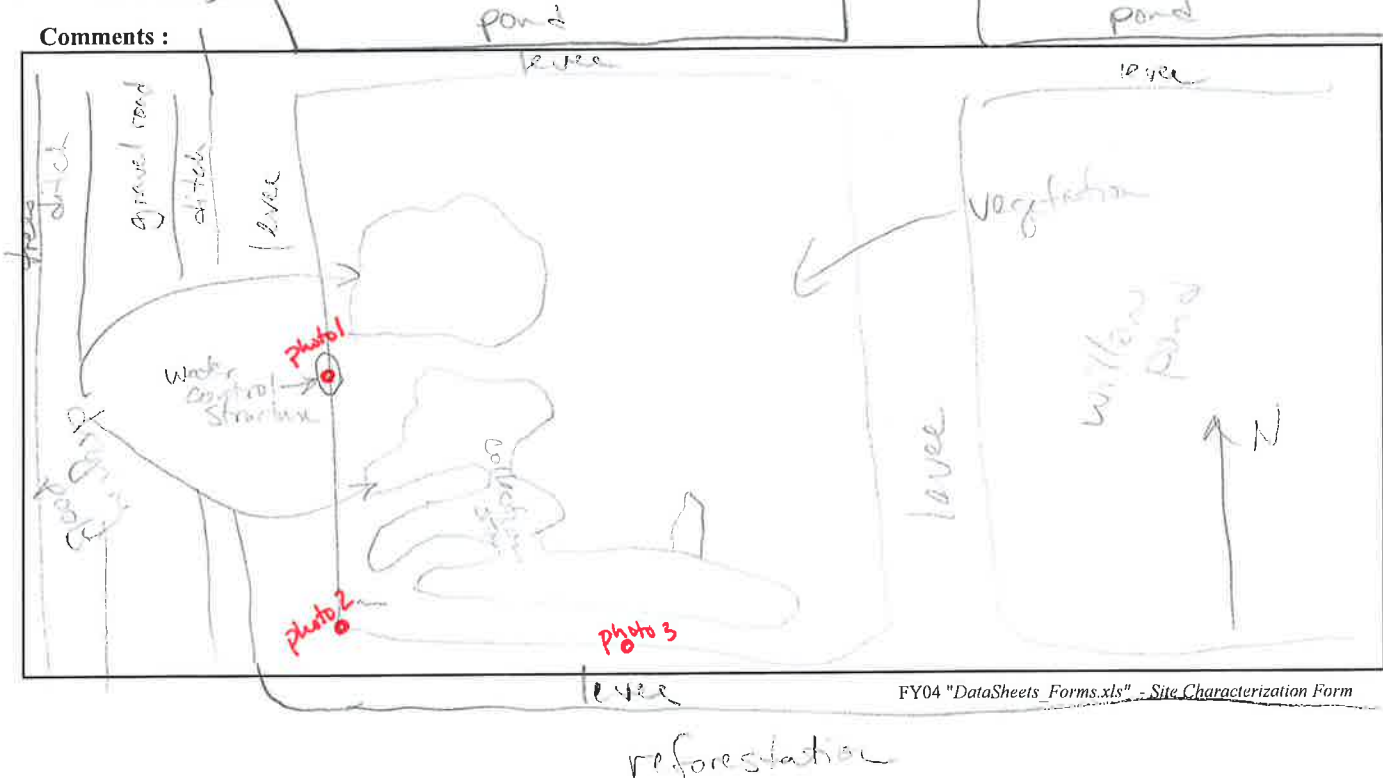
Habitat type (Select from list) : Man-made pond

Contaminants of Concern (Select from list) : None suspected Surrounding Land Use (Select from list) :
 North : Riparian/corridor
 East : _____
 South : _____
 West : _____

Site Photo Filenames (SiteID-direction facing-DATE) :

- ① WCS looking NE
- ② SW corner looking E
- ③ WCS looking SE
- ③ S boundary looking N

Comments :





USFWS National Abnormal Amphibian Program

DATA COLLECTION FORM

Date: 6/12/08
Refuge: CWR
Site ID: Unit W CWR01

Collectors: Becky Rosmond
HGI Mitchell
Mark Williams

Air Temp: 89
Water Temp: (C)
Water level (select from the following):
deep (> 3ft in some areas)
shallow (< 3ft throughout)
drying (between 3 ft and dry)
dried up (no water)

Start time: 1308
End time: 1400
Weather: Sc. Clouds

Egg Masses Present: NA
Egg Mass Water Depth (cm): NA
Egg Mass Species ID Code(s): NA

RAP, A - Picked
RASP - Legend
BUWF - Fwd cont
BFOW

Table with columns: Frog#, Species Code, Length (mm) SVL, TAL, Gosner Stage, Abnormal? (mark if Yes), Preserved? (mark if Yes), Abnormal Frog ID, Comments. Contains 28 rows of frog data.

- 1. Frog #: Number frogs 1,2,3... for each species.
2. Process each frog.
3. If abnormal, assign a unique Abnormal Frog ID:
Region Number (R4) - 5 character SiteID -
6 digit collection date - Species Code -
3 digit Frog # from this collection.

Key Measurements of Tadpoles/Metamorphs Key M



BL - Body Length TAL - Tail Length SVL - Snout-Vent Length TL - Total Length
BL - Tip of the snout to the point where the lateral outline of the tail meets the body.
TAL - Point where the lateral outline of the tail meets the body to the tip of the tail.

Example Abnormal Frog ID: R4-OVF02-060403-RASP-002 w
Region 4, Overflow NWR, site 02, June 4, 2003, Rana sphenoccephala, frog #002

Incidental Species Encountered:

Comments:



USFWS National Abnormal Amphibian Program

DATA COLLECTION FORM

Frog#	Species Code	Length (mm)		Gosner Stage	Abnormal? (mark if Yes)	Preserved? (mark if Yes)	Abnormal Frog ID	Comments
		SVL	TAL					
29	BWFF	9	0	46				
30	BWFF	10	0	46				
31	BWFF	9	0	46				
32	BWFF	10	0	46				
33	BWFF	9	0	46				
34	BWFF	10	1	45	✓		W34	digit #4 on right side
35	BWFF	9	0	46				
36	BWFF	9	0	46				
37	BWFF	9	0	46				
38	BWFF	9	0	46				
39	BWFF	9	0	46				
40	BWFF	9	0	46				
41	BWFF	10	0	46				
42	BWFF	10	0	46				
43	BWFF	8	0	46				
44	BWFF	9	0	46				
45	BWFF	9	0	46				
46	BWFF	8	0	46				
47	BWFF	9	0	46				
48	BWFF	10	0	46				
49	BWFF	9	0	46				
50	BWFF	10	0	46				
51	BWFF	7	1	45				
52	BWFF	9	0	46				
53	BWFF	12	0	46				
54	BWFF	8	0	46				
55	BWFF	9	0	46				
56	BWFF	17	0	46				
57	RAPA	24	6	43				
58	RASP	26	4	44				
59	RASP	29	0	46				
60	RASP	29	0	46				
61	RASP	27	2	45				
62	RASP	31	0	46				
63	RASP	29	0	46	✓			
64	RASP	28	0	46				



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosemond, H. Mitchell, M. Williams Site/Location: CWR01 - Pond W

Abnormal Frog ID Number R4-CWR01-061208-BFOW-003

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Extra eye(s) (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. -describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
	✓	Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
	✓	Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

part of #4 + #5

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Left

Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Casamano, H. Mitchell, M. Williams Site/Location: CWR01 - Pond W

Abnormal Frog ID Number R4-CWR01-061208-BFOW-005

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (<i>describe</i>)
		Extra eye(s) (<i>describe</i>)
		Other (<i>describe</i>)

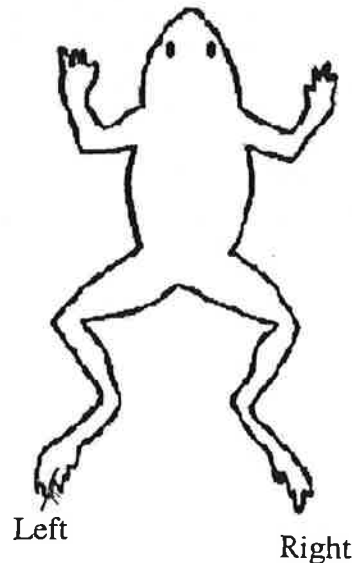
FRONT LIMBS		
Left	Right	
		Partial limb (<i>describe</i>)
		Foot missing
		Digits missing, fused or clubbed (<i>describe</i>)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (<i>describe</i>)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. - <i>describe</i>)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (<i>specify digits</i>)
✓		Digits shortened, fused or clubbed
		Digits in abnormal location (<i>describe</i>)
		Extra digits (<i>describe</i>)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (<i>describe</i>)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (<i>describe</i>)

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (<i>describe</i>)
		WEBBING - fusion between thigh and calf (<i>describe</i>)
		Extra Limbs- how many, location (<i>describe</i>)
		Fresh Bleeding or Injuries (<i>describe</i>)
		Other (<i>describe</i>)



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosamond, H. Mitchell, M. Williams Site/Location: CWR-01

Abnormal Frog ID Number R4-CWR01-061208-BEOW-012

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Extra eye(s) (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. -describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
<input checked="" type="checkbox"/>		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Left Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosamond, H. Mitchell, M. Williams Site/Location: CWR 01 - Unit W

Abnormal Frog ID Number R4-CWR01-861208-BFOW-019

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Extra eye(s) (describe)
		Other (describe)

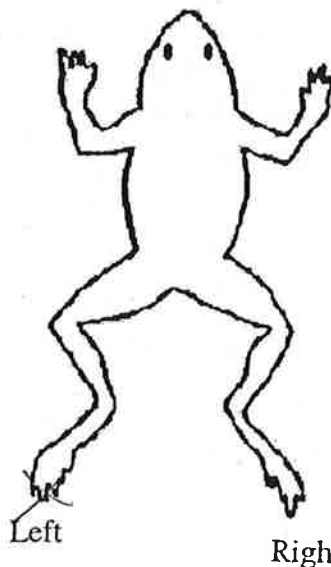
FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. -describe)
		Entire limb present, abnormal size (atrophied or enlarged)
<u>all</u>		Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosemond, P. Mitchell, M. Williams Site/Location: CWR01 - Unit W

Abnormal Frog ID Number R4-CWR01-061208-BFOW-034

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Extra eye(s) (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
	<input checked="" type="checkbox"/>	Other (describe)

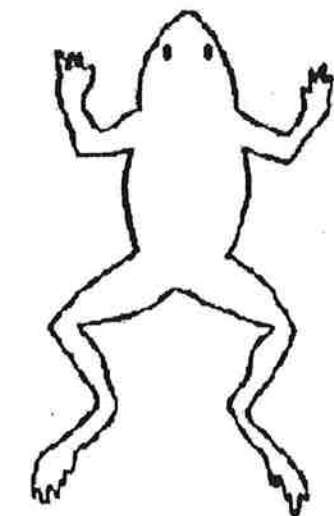
↑ no

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. -describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
	<input checked="" type="checkbox"/>	Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

COMMENTS:
 missing complete right front limb. - No. 4th digit on right near may be shortened

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Left

Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: S. Rosemond, H. Mitchell, M. Williams

Site/Location: CWR01 - unit W

Abnormal Frog ID Number R4-CWR01-061208-RASP-063

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Extra eye(s) (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

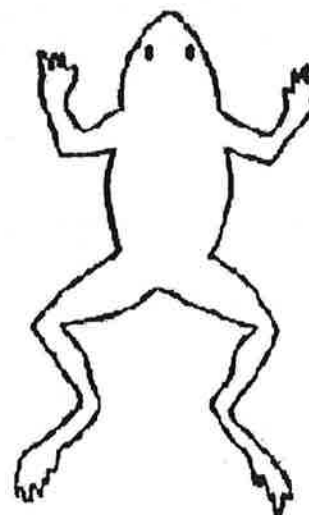
HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. -describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
✓		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

COMMENTS:

Bone present, but lacks all tissue past "knee" joint.

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Left

Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



USFWS National Abnormal Amphibian Program

SITE CHARACTERIZATION FORM

Refuge : Coldwater River NWR Collectors : Becky Rosamond
 Date : 6/12/2008 Hal Mitchell
 Site ID : CWR02 Mark Williams

Start Time : 14:31 Air (°C) : 32 Weather : Scattered clouds
 End Time : 14:57 H₂O (°C) : _____

Datum : NAD27 WGS 84 decimal degrees (hddd.ddddd°) Elevation (+/- m) : _____
 Latitude : N 34° 05' 702 Make of GPS unit : Garmin
 Longitude : W 90° 07' 978 Model of GPS unit : III+

Describe where coordinates were taken in relation to wetland :
 at collection site From SE corner - west point 104

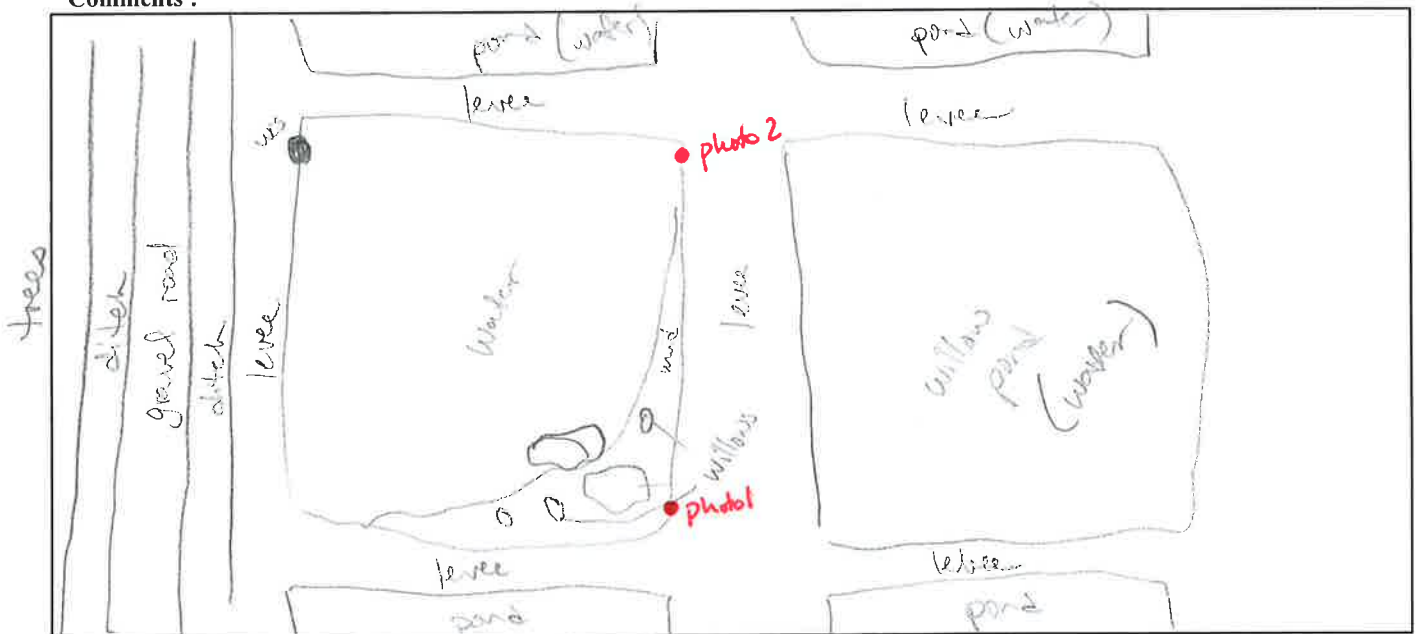
Area (m²) : _____ Water level (select from) : deep shallow drying dried up
 (> 3ft in some areas) (< 3ft throughout) (between 3 ft and dry) (no water)
 % Canopy Cover: 0

Habitat type (Select from list) : Man-made pond

Contaminants of Concern (Select from list) : None suspected Surrounding Land Use (Select from list) :
 North : Waterbody/riparian corridor
 East : _____
 South : _____
 West : _____

Site Photo Filenames (SiteID-direction facing-DATE) :
 ① SE corner looking NW ② NE corner looking WSW
 ② NE corner looking SSW

Comments :





USFWS National Abnormal Amphibian Program

DATA COLLECTION FORM

Date: 6/17/08
Refuge: CWR
Site ID: Q LWROZ

Collectors: Becky Rosamond
Hil Mitchell
Mark Williams

Air Temp 89°F

Water Temp (C)

Start time: 1431

Egg Masses Present: NA

Water level (select from the following):

deep (> 3ft in some areas)
shallow (< 3ft throughout)
drying (between 3 ft and dry)
dried up (no water)

End time: 1457

Egg Mass Water Depth (cm): NA

Weather: Scattered clouds

Egg Mass Species ID Code(s): NA

2.14 @ WLS

Table with columns: Frog#, Species Code, Length (mm) SVL, Length (mm) TAL, Gosner Stage, Abnormal? (mark if Yes), Preserved? (mark if Yes), Abnormal Frog ID, Comments. Rows 1-28.

- 1. Frog #: Number frogs 1,2,3... for each species.
2. Process each frog.
3. If abnormal, assign a unique Abnormal Frog ID: Region Number (R4) - 5 character SiteID - 6 digit collection date - Species Code - 3 digit Frog # from this collection.

Key Measurements of Tadpoles/Metamorphs Key M



BL = Body Length TAL = Tail Length SVL = Snout-Vent Length TL = Total Length
BL - Tip of the snout to the point where the lateral outline of the tail muscle joins the body
TAL - Point where the lateral outline of the tail muscle joins the body to the tip of the tail

Incidental Species Encountered:

Comments:

Example Abnormal Frog ID: R4-OVF02-060403-RASP-002 W: TAL - Point where the lateral outline of the tail muscle joins the body to the tip of the tail
Region 4, Overflow NWR, site 02, June 4, 2003, Rana sphenoccephala, frog #002

- 4. Fill out an Abnormal Frog Sheet for each abnormal frog found.



USFWS National Abnormal Amphibian Program

DATA COLLECTION FORM

Frog#	Species Code	Length (mm)		Gosner Stage	Abnormal? (mark if Yes)	Preserved? (mark if Yes)	Abnormal Frog ID	Comments
		SVL	TAL					
29	BuWF	11		46				
30	BuWF	11		46				
31	BuWF	11		46				
32	BuWF	11		46				
33	BuWF	11		46				
34	BuWF	11		46				
35	BuWF	11		46				
36	BuWF	11		46				
37	BuWF	10		46				
38	BuWF	11		46				
39	BuWF	11		46				
40	BuWF	11		46				
41	BuWF	11		46				
42	BuWF	11		46				
43	BuWF	11		46				
44	BuWF	10		46				
45	BuWF	16		46				
46	BuWF	11		46				
47	BuWF	11		46				
48	BuWF	10		46				
49	BuWF	11		46				
50	BuWF	11		46				
51	BuWF	11		46				
52	BuWF	11		46				
53	BuWF	14		46				
54	BuWF	11		46				
55	BuWF	11		46				
56	BuWF	11		46				
57	BuWF	11		46				
58	BuWF	13		46	✓		Q-58	
59	BuWF	11		46				
60	BuWF	11		46				



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosamond, H. Mitchell, M. Williams

Site/Location: R4-CWR02 Pond Q

Abnormal Frog ID Number R4-CWR02-061208-BFDW-0058

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (<i>describe</i>)
		Extra eye(s) (<i>describe</i>)
		Other (<i>describe</i>)

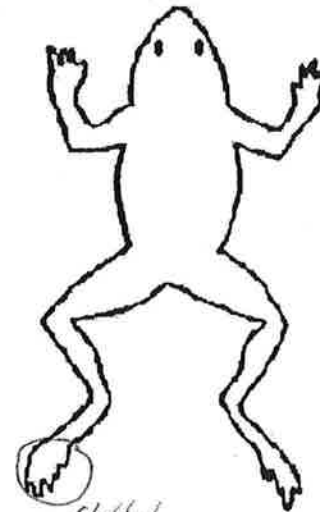
FRONT LIMBS		
Left	Right	
		Partial limb (<i>describe</i>)
		Foot missing
		Digits missing, fused or clubbed (<i>describe</i>)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (<i>describe</i>)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. - <i>describe</i>)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (<i>specify digits</i>)
<input checked="" type="checkbox"/>		Digits shortened, fused or clubbed
		Digits in abnormal location (<i>describe</i>)
		Extra digits (<i>describe</i>)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (<i>describe</i>)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (<i>describe</i>)

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (<i>describe</i>)
		WEBBING - fusion between thigh and calf (<i>describe</i>)
		Extra Limbs- how many, location (<i>describe</i>)
		Fresh Bleeding or Injuries (<i>describe</i>)
		Other (<i>describe</i>)



Left Clubbed

Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



USFWS National Abnormal Amphibian Program

SITE CHARACTERIZATION FORM

Refuge : Coldwater River NWR Collectors : Mark Williams
 Date : 6/24/2008 Hal Mitchell
 Site ID : CWR01

Start Time : 10:03 Air (°C) : 31 Weather : Clear
 End Time : 10:52 H₂O (°C) : _____

Datum : NAD27 decimal degrees (hddd.ddddd°) Elevation (+/- m) : _____
 Latitude : N 34° 05.299' Make of GPS unit : Garmin
 Longitude : W 90° 08.123' Model of GPS unit : III+

Describe where coordinates were taken in relation to wetland :
western levee (water control structure)

Area (m²) : _____ Water level (select from) : **deep** **shallow** **drying** **dried up**
 (> 3ft in some (< 3ft (between 3 (no water)
 areas) throughout) ft and dry)
 % Canopy 0
 Cover: _____

Habitat type (Select from list) : Man-made pond

Contaminants of Concern (Select from list) :

None suspected

Surrounding Land Use (Select from list) :

North : Riparian/corridor
 East : _____
 South : _____
 West : _____

Site Photo Filenames (SiteID-direction facing-DATE) :

CWR01-NE-061808
CWR01-SE-061808

CWR01-E-061808
CWR01-N-061808

Comments :



DATA COLLECTION FORM

Date: 6/24/08
Refuge: LWR
Site ID: W 2nd collection

Collectors: Hal Mitchell
Mark Williams

Air Temp (C) 88 F Start time: 1003 # Egg Masses Present: NA
Water Temp (C) End time: 1052 Egg Mass Water Depth (cm): NA
Avg Water Depth (cm) Weather: Clear Egg Mass Species ID Code(s): NA

Table with columns: Frog#, Species Code, Length (mm) SVL, TAL, Gosner Stage, Abnormal?, Preserved?, Abnormal Frog ID, Comments. Rows 1-30 with handwritten data.

- 1. Frog #: Number frogs 1,2,3... for each species.
2. Process each frog.
3. If abnormal, assign a unique Abnormal Frog ID:
Region Number (R4) - 5 character SiteID -
6 digit collection date - Species Code -
3 digit Frog # from this collection.
Example Abnormal Frog ID: R4-OVF02-060403-RASP-002 would correspond to
Region 4, Overflow NWR, site 02, June 4, 2003, Rana sphenoccephala, frog #002
4. Fill out an Abnormal Frog Sheet for each abnormal frog found.

Key Measurements of Tadpoles/Metamorphosis



SVL = Snout Length TAL = Tail Length SVL = Snout/Veal Length TL = Total Length
TLN = Tip of the tail to the point where the lateral midline of the tail meets the body
TAL - From where the lateral midline of the tail meets the body to the tip of the tail

Incidental Species Encountered:

Comments:

Malformed Frog Surveys at Coldwater River NWR – 2008

Beginning in May 2008, staff monitored multiple ponds at Coldwater River NWR for the presence of tadpoles to monitor development. Very few tadpoles were observed. The ponds range in size from 14 – 20 acres and tadpoles are not likely to be concentrated until the ponds begin drying. Additionally, during drying periods, the ponds are heavily used by wading birds for foraging. During a visit on June 12, numerous metamorph Fowler's toads were observed on two of the drying units. A collection was made at each of those units. Additionally, at site CWR01, metamorph southern leopard frogs were observed. However, many of these were beyond the maximum size allowed by the sampling protocol. Additionally, the pond margins were heavily vegetated and it was difficult to catch individuals in the vegetation.

A second collection was made at site CWR01 on June 24. Based on the size of the metamorphs and the time between captures, it was assumed that these were different individuals than were sampled the first time. Several more visits were made the units through July, but no other samples were collected.

Based on the presence of leopard frog metamorphs, it appears that monitoring began too late to collect leopard frogs. Monitoring in 2009 should begin earlier to attempt collecting a sample of this species. Additionally, the refuge supports a large population of green treefrogs and numerous young of the year are seen during the summer. However, they are usually seen some distance from the breeding sites and exceed the maximum size for this survey. Based on anecdotal information, sampling for this species may need to occur at night.

Photos:

CWR01-NE-061808



CWR01-SE-061808



CWR01-E-061808



CWR01-N-061808



CWR02-NW-061808



CWR02-SSW-061808



CWR02-WSW-061808





U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosemond, H. Mitchell, M. Williams

Site/Location: R4-CWR02 Pond Q

Abnormal Frog ID Number R4-CWR02-061208-BFDW-0058

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Extra eye(s) (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. -describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
<input checked="" type="checkbox"/>		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Left Clubbed

Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosamond, H. Mitchell, M. Williams Site/Location: CWR01 - Pond W

Abnormal Frog ID Number R4-CWR01-061208-BFDW-003

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Extra eye(s) (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. -describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
	✓	Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
	✓	Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

part of #4 + #5

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Left

Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosemond, H. Mitchell, M. Williams Site/Location: CWR01 - Pond W

Abnormal Frog ID Number R4-CWR01-061208-BFOW-005

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (<i>describe</i>)
		Extra eye(s) (<i>describe</i>)
		Other (<i>describe</i>)

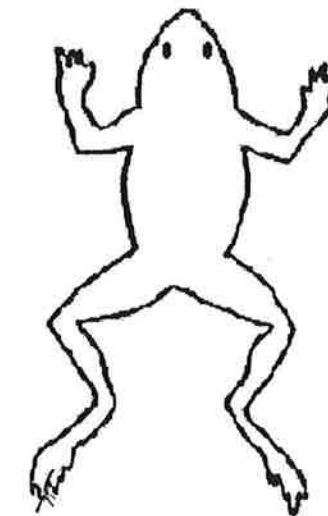
FRONT LIMBS		
Left	Right	
		Partial limb (<i>describe</i>)
		Foot missing
		Digits missing, fused or clubbed (<i>describe</i>)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (<i>describe</i>)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. - <i>describe</i>)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (<i>specify digits</i>)
<input checked="" type="checkbox"/>		Digits shortened, fused or clubbed
		Digits in abnormal location (<i>describe</i>)
		Extra digits (<i>describe</i>)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (<i>describe</i>)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (<i>describe</i>)

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (<i>describe</i>)
		WEBBING - fusion between thigh and calf (<i>describe</i>)
		Extra Limbs- how many, location (<i>describe</i>)
		Fresh Bleeding or Injuries (<i>describe</i>)
		Other (<i>describe</i>)



Left

Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR Date: 6/12/08

Collectors: B. Rosamond, H. Mitchell, M. Williams Site/Location: CWR-01

Abnormal Frog ID Number R4-CWR-01-061208-BFOW-017

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position <i>(describe)</i>
		Extra eye(s) <i>(describe)</i>
		Other <i>(describe)</i>

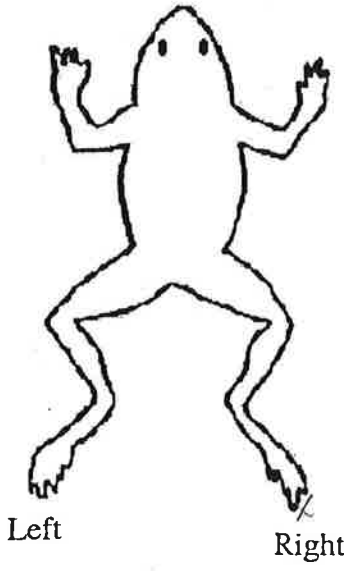
FRONT LIMBS		
Left	Right	
		Partial limb <i>(describe)</i>
		Foot missing
		Digits missing, fused or clubbed <i>(describe)</i>
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other <i>(describe)</i>

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. - <i>describe</i>)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot <i>(specify digits)</i>
		<input checked="" type="checkbox"/> Digits shortened, fused or clubbed
		Digits in abnormal location <i>(describe)</i>
		Extra digits <i>(describe)</i>
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other <i>(describe)</i>

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other <i>(describe)</i>

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right <i>(describe)</i>
		WEBBING - fusion between thigh and calf <i>(describe)</i>
		Extra Limbs- how many, location <i>(describe)</i>
		Fresh Bleeding or Injuries <i>(describe)</i>
		Other <i>(describe)</i>



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosamond, H. Mitchell, M. Williams Site/Location: CWR01 - Unit W

Abnormal Frog ID Number R4-CWR01-061208-BFOW-019

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
	<input type="checkbox"/>	Smaller than normal
	<input type="checkbox"/>	Pupil abnormally shaped
	<input type="checkbox"/>	Unusual position (describe)
	<input type="checkbox"/>	Extra eye(s) (describe)
	<input type="checkbox"/>	Other (describe)

FRONT LIMBS		
Left	Right	
	<input type="checkbox"/>	Partial limb (describe)
	<input type="checkbox"/>	Foot missing
	<input type="checkbox"/>	Digits missing, fused or clubbed (describe)
	<input type="checkbox"/>	Complete calf present, abnormal musculature (enlarged or atrophied)
	<input type="checkbox"/>	Other (describe)

HIND LIMBS		
Left	Right	
	<input type="checkbox"/>	Entire limb present, unusual angle (twisted, rotated, etc. -describe)
	<input type="checkbox"/>	Entire limb present, abnormal size (atrophied or enlarged)
all	<input type="checkbox"/>	Digits missing from foot (specify digits)
	<input type="checkbox"/>	Digits shortened, fused or clubbed
	<input type="checkbox"/>	Digits in abnormal location (describe)
	<input type="checkbox"/>	Extra digits (describe)
	<input type="checkbox"/>	Foot missing (tarsal bones)
	<input type="checkbox"/>	Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
	<input type="checkbox"/>	Portion of calf missing (estimate length of calf present)
	<input type="checkbox"/>	Entire calf (tibiofibula) missing
	<input type="checkbox"/>	Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
	<input type="checkbox"/>	Portion of thigh (femur) missing, (estimate length of thigh present)
	<input type="checkbox"/>	Entire limb missing
	<input type="checkbox"/>	Other (describe)

JAWS		
Left	Right	
	<input type="checkbox"/>	Lower jaw shortened
	<input type="checkbox"/>	Upper jaw shortened
	<input type="checkbox"/>	Other (describe)

COMMENTS:

OTHER ABNORMALITIES		
Left	Right	
	<input type="checkbox"/>	SPINE - curved to left or right (describe)
	<input type="checkbox"/>	WEBBING - fusion between thigh and calf (describe)
	<input type="checkbox"/>	Extra Limbs- how many, location (describe)
	<input type="checkbox"/>	Fresh Bleeding or Injuries (describe)
	<input type="checkbox"/>	Other (describe)



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosamond, H. Mitchell, M. Williams Site/Location: CWR01 - Unit W

Abnormal Frog ID Number R4-CWR01-061208-BFOW-034

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Extra eye(s) (describe)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. -describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
	<input checked="" type="checkbox"/>	Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

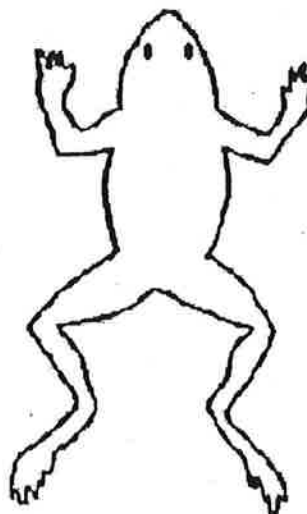
OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
	<input checked="" type="checkbox"/>	Other (describe)

no

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

COMMENTS:
 missing complete right front limb. - No. 4th digit on right rear may be shortened



Left

Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Malformed Amphibian Initiative

Refuge: CWR

Date: 6/12/08

Collectors: B. Rosamond, H. Mitchell, M. Williams

Site/Location: CWR01 - Unit W

Abnormal Frog ID Number R4-CWR01-061208-RASP-063

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Extra eye(s) (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. -describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
✓		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

COMMENTS:

Bone present, but lacks all tissue past "knee" joint.

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Left

Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)