TEXAS MUSSEL WATCH SURVEY DATA SHEET

Date: _____ Collected by: _____ Identified by: _____

Address: _____ City: _____ State: TX Zip: _____

Phone Number: _____ E-mail _____

Monitoring Location: _____

County: _____ State: TX Drainage Basin: _____

GPS/UTM Lat: _____ Long: _____

COLLECTION METHOD: ☐ Hand ☐ Snorkel* ☐ SCUBA*

*Volunteers should never use snorkeling or SCUBA to obtain Texas Mussel Watch data without TPWD authorization

RANDOM OR TIMED SEARCH

☐ random shoreline search
☐ random shallow water search
☐ timed search (time _____)

AREA OR TRANSECT SEARCH

☐ Area _____ (m or ft)
☐ 0.25-m^2 (2.7 ft^2) quadrat
☐ 10-m^2 (107.6 ft^2) quadrat
☐ 6.1-m (20 ft) transect
☐ 40-m (131.2 ft) transect

Total Volunteer Time (Hours Searching X Number of Volunteers): _____

Comments: _____

Asian clams (*Corbicula fluminea*) ☐ Present ☐ Absent

Mussel Species	N Alive	N Shells (whole)	# Shells kept	N Valves (halves)	# Valve kept	Shell Condition (Example: very-recently dead to subfossil – see definitions below)

Very-recently dead: Soft tissue remains attached to the shell; in good condition essentially as it would be in a living specimen; internal and external colors are not faded.
Recently dead: No soft tissue remains, but otherwise in good condition (looking like a living specimen that had been killed and cleaned); internally nacre is glossy and without evidence of algal staining, calcium deposition, or external erosive effects; internal and external colors are not faded.
Relatively-recently dead: In good condition, but internally nacre is loosing its glossy nature; algal staining, calcium deposition, and/or external erosive effects are evident on the nacre; internal and external colors often faded somewhat.
Long dead: Early signs of internal and external erosion, staining, calcium deposition, or some combination of these; most or all of the internal coloration and glossy nature has faded; epidermis with major sections absent, or if present, clearly aged and flaking.
Very-long dead: Significant signs of erosion, staining, and calcium deposition more widely pronounced than above; coloration often faded white or nearly so; relatively little intact epidermis left; for specimens in erosive environments, internal and external features often weathered and smoothed, or otherwise exfoliated; shells often chalky, brittle and crumbling.
Subfossil: Little or no epidermis; nacre faded white and entire shell often white; sometimes with signs of erosion, staining, or calcium deposition; typically chalky and powdery to the touch; shells often brittle and crumbling.

Mail completed data sheet to: Marsha May, Texas Mussel Watch, 4200 Smith School Road, Austin, TX 78744, by August 31st

PWD 945-W7000 (6/08)

FIELD OBSERVATIONS

Water Depth _____ (m or ft)

Water Temperature _____ (C or F)

FLOW RATE

If known, m/sec or ft/sec:

_____

☐

1 – no flow
2 – low
3 – normal
4 – flood
5 – high

WATER COLOR ☐

1 – no color
2 – light green
3 – dark green
4 – tan
5 – red
6 – green/brown
7 – black

WATER CLARITY ☐

1 – clear
2 – cloudy

WATER SURFACE ☐

1 – clear
2 – scum
3 – foam
4 – debris
5 – sheen

SUBSTRATE ☐

1 – none (mostly bedrock)
2 – mostly silt
3 – mostly sand
4 – mostly gravel
5 – mostly cobble
6 – mostly boulder
7 – other:

_____

Wentworth scale of substrate size

Boulder: greater than 25.6 cm
Cobble: 6.4–25.6 cm
Gravel: 0.2–6.4 cm
Sand: 0.006–0.2 cm
Silt: less than 0.006 cm

What land uses are directly adjacent to this site? Check all that apply:

- ☐ Undisturbed natural area
- ☐ Suburban residences
- ☐ Urban residences
- ☐ Rural residences
- ☐ Recreation area (describe) _____
- ☐ Cropland (list types) _____
- ☐ Rangeland (pasture) for cattle
- ☐ Rangeland (pasture) for other livestock (list types) _____ _____
- ☐ Industry/Manufacturing (describe) _____
- ☐ Other _____

Notes: _____

_____

_____

TEXAS PARKS & WILDLIFE

TEXAS MUSSEL WATCH SURVEY DATA SHEET

Date: 1/1/2007 Collected by: Jane Doe Identified by: Mary Doe

Address: 100 Anywhere City: Austin State: TX Zip: 78704

Phone Number: (512) 555-0000 E-mail jane.doe@tx.com

Monitoring Location: Colorado River — 2 miles downstream from Congress Ave. bridge

County: Travis State: TX Drainage Basin: Colorado

GPS/UTM Lat: 30°18'N Long: 97°42'W

COLLECTION METHOD: ☒ Hand ☐ Snorkel* ☐ SCUBA*

*Volunteers should never use snorkeling or SCUBA to obtain Texas Mussel Watch data without TPWD authorization

RANDOM OR TIMED SEARCH

☒ random shoreline search

☒ random shallow water search

☐ timed search (time _____)

AREA OR TRANSECT SEARCH

☐ Area _____ (m or ft) ☐ 6.1-m (20 ft) transect

☐ 0.25-m^2 (2.7 ft^2) quadrat ☐ 40-m (131.2 ft) transect

☐ 10-m^2 (107.6 ft^2) quadrat

Total Volunteer Time (Hours Searching X Number of Volunteers): 2.0 hours

Comments: Found many Asian clams

Asian clams (*Corbicula fluminea*) ☒ Present ☐ Absent

Mussel Species	N Alive	N Shells (whole)	# Shells kept	N Valves (halves)	# Valve kept	Shell Condition (Example: very-recently dead to subfossil – see definitions below)
Threeridge	1	1	0	2	1	recently to long dead
Washboard				3	1	very-long dead to subfossil

Very-recently dead: Soft tissue remains attached to the shell; in good condition essentially as it would be in a living specimen; internal and external colors are not faded.

Recently dead: No soft tissue remains, but otherwise in good condition (looking like a living specimen that had been killed and cleaned); internally nacre is glossy and without evidence of algal staining, calcium deposition, or external erosive effects; internal and external colors are not faded.

Relatively-recently dead: In good condition, but internally nacre is loosing its glossy nature; algal staining, calcium deposition, and/or external erosive effects are evident on the nacre; internal and external colors often faded somewhat.

Long dead: Early signs of internal and external erosion, staining, calcium deposition, or some combination of these; most or all of the internal coloration and glossy nature has faded; epidermis with major sections absent, or if present, clearly aged and flaking.

Very-long dead: Significant signs of erosion, staining, and calcium deposition more widely pronounced than above; coloration often faded white or nearly so; relatively little intact epidermis left; for specimens in erosive environments, internal and external features often weathered and smoothed, or otherwise exfoliated; shells often chalky, brittle and crumbling.

Subfossil: Little or no epidermis; nacre faded white and entire shell often white; sometimes with signs of erosion, staining, or calcium deposition; typically chalky and powdery to the touch; shells often brittle and crumbling.

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PWD 945-W7000 (6/08)

FIELD OBSERVATIONS

Water Depth 0.5 m (m or ft) **Water Temperature** 60°C (C or F)

FLOW RATE
If known, m/sec or ft/sec: _____

3

1 – no flow
2 – low
3 – normal
4 – flood
5 – high

WATER COLOR

2

1 – no color
2 – light green
3 – dark green
4 – tan
5 – red
6 – green/brown
7 – black

WATER CLARITY

1

1 – clear
2 – cloudy

WATER SURFACE

1

1 – clear
2 – scum
3 – foam
4 – debris
5 – sheen

SUBSTRATE

7

1 – none (mostly bedrock)
2 – mostly silt
3 – mostly sand
4 – mostly gravel
5 – mostly cobble
6 – mostly boulder
7 – other:

4 and 5 (mostly gravel and cobble)

Wentworth scale of substrate size

Boulder: greater than 25.6 cm
Cobble: 6.4–25.6 cm
Gravel: 0.2–6.4 cm
Sand: 0.006–0.2 cm
Silt: less than 0.006 cm

What land uses are directly adjacent to this site? Check all that apply:

- ☒ Undisturbed natural area
- ☐ Suburban residences
- ☐ Urban residences
- ☐ Rural residences
- ☒ Recreation area (describe) near hike and bike trail
- ☐ Cropland (list types) _____
- ☐ Rangeland (pasture) for cattle
- ☐ Rangeland (pasture) for other livestock (list types) _____
- ☐ Industry/Manufacturing (describe) _____
- ☐ Other _____

Notes: noticed raccoon tracks near shoreline