Targeted Dip Net and Light Trap Sampling for Larval Spotted Gar (*Lepisosteus oculatus*) in Rondeau Bay, Lake Erie, Ontario, 2018

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ABSTRACT

Gáspárdy, R.C, Barnucz, J., Colm, J.E. and Drake, D.A.R. 2021. Targeted Dip Net and Light Trap Sampling for Larval Spotted Gar (*Lepisosteus oculatus*) in Rondeau Bay, Lake Erie, Ontario, 2018. Can. Data Rep. Fish. Aquat. Sci. 1349: vi + 85 p.

Spotted Gar (*Lepisosteus oculatus*) is listed as Endangered under Canada's *Species at Risk Act* owing to a limited Canadian distribution and numerous threats related to the removal or degradation of aquatic vegetation. Limited information is available regarding the early life history and habitat associations of larval Spotted Gar. Using information from a previous study tracking movement of adults to spawning locations, microhabitats were identified for sampling larval Spotted Gar in Rondeau Bay. In the spring of 2018, visual dip net and quatrefoil light trap sampling was conducted in two habitat types (tributary drains and the bay) and two sampling zones within each habitat type (nearshore and offshore/channel). A habitat assessment measuring water chemistry parameters and submerged aquatic vegetation was conducted at each site. Captured fish larvae were retained for subsequent genetic analyses, which targeted the cytochrome c oxidase I (CO1) gene to identify larval fishes. A total of 31 species were detected between the two gear types, and 37 larval Spotted Gar were captured in the dip net samples; 95% of the larval Spotted Gar were detected in nearshore sampling zones (68% tributary, 27% bay). This data report summarizes capture and habitat data from targeted larval sampling in Rondeau Bay and presents information on early life history of captured Spotted Gar.

RÉSUMÉ

Gáspárdy, R.C, Barnucz, J., Colm, J.E. and Drake, D.A.R. 2021. Targeted Dip Net and Light Trap Sampling for Larval Spotted Gar (*Lepisosteus oculatus*) Rondeau Bay, Lake Erie, Ontario, 2018. Can. Data Rep. Fish. Aquat. Sci. 1349: vi + 85 p.

Le lépisosté tacheté (*Lepisosteus oculatus*) est inscrit sur la liste des espèces en voie de disparition en vertu de la *Loi sur les espèces en péril* du Canada en raison de son aire de répartition limitée au Canada et de nombreuses menaces liées à l'enlèvement ou à la dégradation de la végétation aquatique. On dispose de peu d'informations sur les premiers stades du cycle biologique du lépisosté tacheté et sur les associations larves-habitat. À partir des informations d'une précédente étude où l'on suivait les mouvements des adultes vers les lieux de fraie, on a recensé des microhabitats pour l'échantillonnage des larves de lépisosté tacheté dans la baie Rondeau. Au printemps 2018, on a effectué un échantillonnage visuel à l'épuisette et au piège lumineux quatre-feuilles dans deux types d'habitats, soit la baie et ses affluents, et dans deux zones au sein de chaque type d'habitat, soit près du rivage et loin du rivage (chenal). Une évaluation de l'habitat mesurant les paramètres de chimie de l'eau et la végétation aquatique submergée a été réalisée à chaque site. Les larves de poisson capturées ont été conservées pour des analyses génétiques ultérieures; le gène de la cytochrome c oxydase I (CO1) a été ciblé dans le but d'identifier les larves de poisson. Au total, 31 espèces ont été détectées entre les deux types d'engins; 37 larves de lépisosté tacheté ont été capturées dans les échantillons prélevés à l'épuisette, et 95 % d'entre elles ont été détectées dans les zones d'échantillonnage riveraines (68 % dans les affluents, 27 % dans la baie). Le présent rapport résume les données de capture et d'habitat de l'échantillonnage larvaire ciblé dans la baie Rondeau et présente des informations sur le début du cycle de vie des lépisostés tachetés capturés.

INTRODUCTION

Fisheries and Oceans Canada (DFO) has the responsibility to provide for the protection and recovery of fishes listed under the *Species at Risk Act* (2002), hereinafter SARA. To inform scientific aspects of the recovery process, DFO regularly conducts field sampling to satisfy various research objectives for SARA-listed fishes, such as evaluating the distribution and abundance of species, determining species-habitat relationships, and better understanding the influence of threats and recovery actions. DFO data reports are published to support the Species at Risk Program by providing an overview of field activities and to provide a medium for archiving data associated with sampling SARA-listed fishes and their habitat.

The Spotted Gar (*Lepisosteus oculatus*) is listed as Endangered under SARA owing to a limited Canadian distribution and its dependence on shallow, vegetated habitats for all life stages. The species is threatened by aquatic invasive plants, removal of native vegetation, and alteration of aquatic habitat (e.g., filling, dredging, siltation) (COSEWIC 2015, DFO 2020). The largest and best studied population of Spotted Gar in Canada is found in Rondeau Bay in Lake Erie (Glass et al. 2012). In Rondeau Bay, spawning has been observed in late May through mid June (water temperatures: 16.6–25.6°C) at numerous shoreline locations in the bay and its tributaries, typically in beds of mixed, complex macrophytes, notably *Potamogeton* sp. (Glass et al. 2012, DFO 2020). Adhesive eggs are deposited on aquatic vegetation, hatching occurs approximately one week after fertilization, and larvae cling to aquatic vegetation until free swimming begins (Cudmore-Vokey and Minns 2002).

There is limited understanding of the early life history of Spotted Gar in Canada, which is made more challenging by the fact that its range in Canada overlaps with Longnose Gar (*Lepisosteus osseus*). Difficulties in differentiating the two species as young-of-year (YOY) have hindered in-depth, species-specific analysis of growth and habitat associations of YOY. Preliminary work by Glass and Mandrak (2014) based on a small number of YOY Spotted Gar found that they avoided deep, highly turbid areas with high conductivity and extremely low or high dissolved oxygen, and showed a moderate preference for shallow water (< 5 m) and warmer temperatures (> 23.5°C). To further investigate the early life history and habitat associations of larval Spotted Gar, two gears were used to target larval gar in Rondeau Bay. This work was informed by a study tracking adult Spotted Gar to spawning locations in the spring of 2017 to aid in locating larval specimens shortly after hatch (DFO 2020). Genetic barcoding techniques were employed to confirm the identity of individuals presumed to be Spotted or Longnose gars. Overall, this work contributes to the understanding of early life stages and habitat associations of Spotted Gar in Canada.

METHODS

STUDY SYSTEM AND SITE SELECTION

Two drains within Rondeau Bay, Bates-Bloomfield Drain (Drain 1) and Mcdougall Drain (Flat Creek), were selected for targeted larval Spotted Gar sampling in the spring of 2018. These drains were selected based on known Spotted Gar spawning activity reported from previous DFO spawning surveys of tagged Spotted Gar (DFO unpublished data, DFO 2020). Both drains function as riverine wetlands that are shallow, turbid systems, containing an abundant and diverse aquatic macrophyte community. For the purpose of this project, two habitats were sampled for larval fishes: 1) tributary habitat located within each drain, and 2) shoreline habitat in the bay centred on and adjacent to the mouth of each drain. The boundaries of the drain habitats were defined as the upstream-most point navigable by small boat at the time of sampling, downstream to the mouth at Rondeau Bay. The lateral boundaries of the bay habitat

were up to 500 m (or to next adjacent drain) along the shoreline on either side of the mouth of each drain. Within both drain and bay habitats, sampling zones were divided into nearshore (between 0 - 5 m from the shore or edge of dense emergent vegetation), or channel/offshore (between 50 - 100 m offshore in the bay, or > 5 m away from either shore in the drain habitat; see Figure 1 for sampling diagram). Note that rules for establishing nearshore and offshore sites were used in the field as best as possible, but in some nearshore cases, measured distance from shore following site selection was slightly greater than the intended 5 m cut off due to local site conditions.

Sampling was conducted between May 29thand June 26th2018, and incorporated stratified-random site selection. For ease of site selection, drain and bay habitats were each divided into three segments of equal length to aid the sampling crew in site spacing. One nearshore site was randomly selected in each of the six segments (three drain segments, three bay segments) and one channel/offshore site was randomly selected per habitat (drain vs bay) each day (Figure 1). This was done for both gears (i.e., dip net and light trap), resulting in a total of eight sites per day per sampling method. Separate dip net and light trap sites were selected on each sampling day to minimize disturbance during each type of sampling. Wind conditions on the bay occasionally made bay sites unsampleable so additional sites were completed within the drain habitat on those days.

LARVAL FISH SAMPLING

Dip Net Sampling

Active targeted sampling for larval gar was conducted using visual dip netting. The dip nets measured 23 cm x 15 cm at the opening with 0.8 mm net mesh and a 40 cm long handle. Upon arrival at the sampling site, the boat was anchored from both the bow and stern to minimize vessel movement during sampling, with the bow pointed at the area to be sampled. Three crew members then positioned themselves with one crew member at the bow, and one crew member at each side of the boat. The sampling crew, remaining as still as possible to not disturb any larval fishes, conducted a timed 15 minute visual search of the water immediately surrounding the boat, dip netting any larval fish within arm's reach. Priority was given to fishes that appeared "gar-like" (i.e., had an elongated snout, dorsal fin set far back on the body, round caudal fin) (Figure 2). Polarized sunglasses were worn to reduce glare and improve capture efficiency. Dip netting effort was calculated in total person hours by multiplying the total number of dip netters by the 15 minute sampling time. During all dip net sampling in 2018, three crew members dip netted for 15 minutes (0.25 hours) for a total of 0.75 person hours per dip net site.

Light Trap Sampling

Passive sampling for larval gar was conducted using overnight sets of floating WaterMark® Quadrafoil Larval Fish Light Traps with a chemical glow stick to attract larval fishes via phototactic behavioural response. Quadrafoil light traps have four 25 cm tall clear polycarbonate tubes arranged in a 30 cm diameter cloverleaf shape with 5 mm wide entry slits between each tube. In the centre of the cloverleaf is a clear central tube (20 mm x 25 cm) for a light source. The top of the trap is constructed of a closed-cell floatation block with eye bolts to rig the trap. The bottom of the trap has an aluminum collection basin with six drainage holes with 250 micron (µm) mesh (Figure 3a).

The deployment rigging for both drain and bay habitats used an anchor weight, float, and rope. A 5 lb (2.28 kg) weight was used for an anchor tied to either a 38 cm orange inflatable mooring buoy or white boat fender with 2 m of rope to accommodate for varied water depth and wave action. The light trap was attached to the anchor and float line with a snap hook (carabiner) at

the end of 0.5 m of rope tied to one of the eye bolts on the top of the light trap (Figure 3bc). One 15 cm Cyalume® SnapLight Yellow Light Stick (high intensity, industrial grade glow stick) with 12 hour glow duration was used as a light source in each light trap.

Light traps were deployed in the afternoon, left to fish overnight, and retrieved the following morning. Light trap effort was calculated in both soak time and glow time for each trap set. Soak time is the total time in hours that the trap was in the water, from deployment time to retrieval time. Glow time is the total time after sunset that the light source was glowing and attracting larval fishes. Light sticks with 12 hour glow duration were activated at deployment, therefore glow time was calculated as the difference between deployment time and sunset subtracted from the 12 hour glow duration. Sunset time was recorded daily from the Garmin Montana® 600 handheld GPS unit, based on GPS position.

On retrieval, the trap and rigging were brought into the boat and water was drained from the trap through the drainage holes. Any organisms remaining in the cloverleaf tubes were rinsed with water in a spray bottle into the collection basin (Figure 3d).

Larval Fish Sample Preservation

Larval fishes collected from both dip net and light trap samples were processed in the same manner. All larval fishes captured were transferred into a white plastic tray and visually reviewed by field crew members to identify individual fish that morphometrically resembled larval gar (Figure 4). Any individuals visually identified as larval gar species (*Lepisosteus* sp.) were counted and preserved separately from all other larval fishes. Bulk unknown larval fishes were not counted. Larval gar and bulk unknown larval fishes were transferred to separate 500 mL Nalgene® high-density polyethylene (HDPE) sample bottles and filled with at least 250 mL of 95% ethanol. Each sample bottle was labelled with a unique sample identification number, which was recorded with associated site information.

HABITAT SAMPLING

Water temperature loggers (Onset HOBO V2) were set at 19 locations in Rondeau Bay (Figure 6) and its tributaries in spring of 2017 and recorded water temperature every 30 minutes until September 2018. In relation to dip net and light trap surveys in 2018, a temperature logger was placed at the first road crossing and at the mouth of each of Bates-Bloomfield and Mcdougall drains. Temperature logger data for these four loggers is summarized in this report. Additional temperature logger data is available on request.

A habitat assessment was completed at the midpoint of all sampling locations either a) immediately after dip net sampling, or b) immediately after light trap deployment. Surface water temperature (°C), conductivity (µS), turbidity (NTU), and dissolved oxygen (mg/L) were measured approximately 0.2 m beneath the water's surface using a YSI EXO2 multi-parameter sonde, which was deployed and allowed to stabilize for approximately 1 minute before measurements were recorded. Water clarity (m) was measured using a 1.2 m Fieldmaster turbidity tube. Air temperature (°C) was measured using a Kestrel 3000 wind meter. Water depth (m) was measured with either a meter stick or with a Laylin Speedtech SM-5 Depthmate portable depth sounder at three representative locations within the sampled area. Wetted stream width (m) was measured at sites within the drains using a Nikon Laser 1200S waterproof laser rangefinder. The edge of dense emergent vegetation (e.g., *Phragmites* sp. or other dense standing vegetation) was considered as "shoreline" where it presented a presumed barrier to fish movement. Distance from shore (m) was measured from the edge of the sampled area to the shoreline. Site location (latitude, longitude) was determined using a Garmin Montana® 600 handheld GPS unit using a Backroads Mapbook Ontario GPS chip.

Riparian vegetation was assessed visually by determining the percent composition of riparian vegetation types (deciduous, coniferous, herbaceous, shrubs, or none) occurring in the riparian zone (within 5 m of the shoreline) directly adjacent to the sampling site.

Aquatic macrophytes were assessed using two methods. The first method involved a visual assessment of the percent areal coverage of four macrophyte classes (submerged, emergent, floating, and open water). The second was a rake-based physical sampling method based on Wagner and Mikulyuk (2012) that was used to assess submerged aquatic vegetation (SAV). A 50 cm garden rake was submerged vertically through the water column until it reached the surface of the substrate. The rake was twisted 360° and pulled vertically up to the boat. The relative macrophyte density on the rake was assessed with the following criteria: no macrophytes present (score = 0), 1 – 25% of rake tines covered (score = 1), 26 – 100% of rake tines covered (score = 2), and substantial overflow of macrophytes across the majority of the tines (score = 3). Filamentous algae was scored similarly per site. Water depth was measured at the point where the rake sample was taken. A list of aquatic vegetation species (or genera) within the site was compiled based on visual assessment of the area sampled and SAV rake samples, noting the dominant vegetation species or genera within the site. Photographs were taken of all rake samples and selected macrophytes to provide a record of macrophyte composition at each site (Figure 6).

LABORATORY SAMPLE PROCESSING

Field samples were kept in the laboratory at room temperature in fire-safe cabinets until all field sampling was complete. Specimens visually identified as larval gar were individually weighed, measured for total length, and photographed. Preserved larval gar were weighed on a VWR® A-Series analytical balance (160 g x 0.1 mg EA1). A Nikon dissection microscope with Nikon DS-Fi3 microscope camera and DS-L4 Microscope Camera Control Unit were used to photograph individual gar. The DS-L4 built-in measurement and annotation functions were also used to measure the total length of preserved larval gar. Larval gar were then transferred individually to an appropriately sized vial labelled with a unique sample identification number, filled with fresh 95% ethanol. Bulk unknown larval fish samples were transferred to a dissection tray with water and reviewed again in the laboratory for any possible larval gar using a dissection microscope as needed. Bulk unknown larval fishes were then transferred to a 20 mL scintillation vial (or multiple, if needed), labelled with unique sample identification numbers, and filled with fresh 95% ethanol. Bulk unknown larval fishes were not counted or photographed.

GENETIC IDENTIFICATION

Individual larval gar and bulk larval samples were sent to the University of Guelph's Canadian Centre for DNA Barcoding (CCDB) for genetic analysis to confirm species identifications. Collection information, including unique sample identification numbers, was sent with the samples and a project entry was created in the Barcode of Life Data System (BOLD) to allow samples to be tracked throughout the genetic analysis process. Larval samples were drained of ethanol, transferred to 50 mL Falcon sample tubes, and lysed with lysis buffer containing proteinase K. The homogenized samples were subsampled and transferred into 96 well-plates, and extracted using a validated silica membrane-based DNA extraction process. Polymerase Chain Reaction (PCR) amplification was completed using primers specific for freshwater fishes targeting the cytochrome c oxidase I (CO1) gene (Ivanova et al. 2006 and 2007). The amplicons from individual larval gar were then unidirectionally Sanger sequenced. Solid Phase Reversible Immobilization (SPRI)-based robotic cleanup was used to remove non-incorporated BigDye from the sequencing reactions. DNA sequence information was gathered with ABI3730XL instruments. The Sanger sequences were then manually edited, identified and validated against

the CCDB's reference library, and then submitted to BOLD. The species identifications were available for download through BOLD and were audited collaboratively by DFO and CCDB. Failure tracking was completed for sample DNA extracts that did not deliver a full-length amplicon, and an alternative primer was used for the secondary analysis. The DNA from bulk larval samples was sequenced using high-throughput metabarcoding protocols with post-sequencing bioinformatics analysis executed in Multiplex Barcode Research and Visualization Environment (mBrave). The analysis of bulk samples produced a list of species likely present in each sample, but did not determine relative abundance in the sample. In cases where the sequences were matched to species not known from the Great Lakes (bulk samples only), the identity was constrained to the genus level (e.g., *Lepomis auritus* was kept as *Lepomis* sp.). All DNA extracts were stored by CCDB and sequences are archived in BOLD for individual gar samples and mBrave for bulk samples.

SAMPLING PERMITS AND DATA ARCHIVING

Sampling for this project was conducted under Species at Risk Act Permit Number 18-PCAA-00013. Data associated with the collections in this report are housed under the project code "2018-LFS-SPG" in the Biodiversity Science database within the Great Lakes Laboratory for Fisheries and Aquatic Sciences. Every effort has been made to ensure the accuracy of data contained in this report; however, results may be updated as part of ongoing data verification procedures. Data associated with this report may be obtained by contacting the Great Lakes Laboratory for Fisheries and Aquatic Sciences.

RESULTS

LARVAL FISH SAMPLING

A total of 356 sites were sampled for larval gar in spring 2018. Sites were approximately evenly distributed between bay and drain habitat types with 72% of sites in the nearshore sampling zone and 28% of sites in the offshore/channel sampling zone (Table 1). 194 sites were sampled using visual dip netting and 162 sites were sampled using passive light traps (Table 2, Figure 7–8). This effort resulted in a total of 237 bulk samples of larval fishes and 65 individual samples of fishes preliminarily identified as larval gar. Although larval gar were targeted, most individuals were no longer truly in the larval stage (i.e. none with yolk sacs or with the adhesive suctorial disc on the snout).

Overall, 31 fish species were genetically identified within the samples. The five most frequently occurring species across all sampling efforts were: Golden Shiner (*Notemigonus crysoleucas*; 35.4% of sites), Pumpkinseed (*Lepomis gibbosus*; 24.4%), Common Carp (*Cyprinus carpio*; 23.9%), Bluegill (*Lepomis macrochirus*; 22.8%), and Smallmouth Buffalo (*Ictiobus bubalus*; 22.2%) (Table 3). Bulk samples of larval fishes from 11 sites, and three individual larval gar specimens from three sites, were unable to be identified genetically, likely due to preservation error.

Dip Net Sampling

The 194 sites sampled using dip nets had a total active sampling time of 145.5 person hours. Larval fishes were detected 51% of the time, at a total of 99 dip net sites, with 18 species including both Spotted Gar (*Lepisosteus oculatus*) and Longnose Gar (*Lepisosteus osseus*) verified using genetic methods (combined results for both bulk and individual samples; Table 3, Appendix A). The most frequently detected species at dip net sites were Golden Shiner (detected at 24.2% of dip net sites), Smallmouth Buffalo (17.0%), Spotted Gar (14.4%), and

Spottail Shiner (*Notropis hudsonius*, 11.9%) (Figure 9a). At sites where larval fishes were detected, an average of two species per site were detected, ranging from one to six species per site (Appendix A). Three species were detected using dip net methods that were not detected in light traps: Spotted Gar, Longnose Gar, and Greenside Darter (Table 3).

Sixty-five individuals from 43 dip net sites were preliminarily identified as larval gar in the field and were processed individually. One of the first individuals separated as a potential larval gar was genetically identified as a Golden Shiner; field notes indicated that the sampling crew was unsure of the ID at the time of collection. Three individuals were not able to be identified genetically to species likely due to preservation error; however, they were large enough to be morphometrically confirmed as larval gar (Figure 10. Images of preserved larval gar specimens taken with microscope camera: a) 44.27 mm Spotted Gar from site DN-B-74, b) 15.35 mm Spotted Gar from site DN-D-087, c) 25.44 mm Longnose Gar from site DN-B-50, d) 59.17 mm Longnose Gar from site DN-B-72, and e)e). Of the remaining 61 individuals, 37 were genetically identified as Spotted Gar, and 24 were identified as Longnose Gar (Table 4, Figure 10. Images of preserved larval gar specimens taken with microscope camera: a) 44.27 mm Spotted Gar from site DN-B-74, b) 15.35 mm Spotted Gar from site DN-D-087, c) 25.44 mm Longnose Gar from site DN-B-50, d) 59.17 mm Longnose Gar from site DN-B-72, and e)). Larval gar specimens whose species identification could not be obtained (n=3) had a mean total length of 38.06 mm (range: 22.87 – 58.29) and mean mass of 0.075 g (0.024 – 0.123 g). Spotted Gar (n=37) had a mean total length of 39.89 mm (13.96 – 83.11 mm) and mean mass of 0.144 g (0.007 – 0.653 g) (Figure 11,12). Longnose Gar (n=24) had a mean total length of 52.61 mm (25.44 – 75.11 mm) and mean mass of 0.202 g (0.027 – 0.474 g) (Figure 11). Individual length, mass, and identification of each larval gar captured is presented in Table 5. Based on genetic identification, no gar species were detected in the bulk samples of larval fishes captured in dip nets (Table 3).

Larval gar were captured at 42 sites between June 5th and June 26th 2018; a mean of 1.5 larval gar were detected per site, ranging from one to five larval gar at a single site. Overall, 45.3% of the larval gar were captured on June 20th, including 17 Spotted Gar, 10 Longnose Gar, and two gar not identified to species (Figure 13). The majority of larval Spotted Gar detected (95%) were captured in nearshore habitat; 68% were detected in nearshore drain habitat and 27% were detected in nearshore bay habitat (Figure 14). The remaining 5% of larval Spotted Gar were detected in offshore drain habitat. Larval Spotted Gar were not captured in offshore bay habitat. Larval Longnose Gar were also most frequently detected in nearshore habitat; however, larval Longnose Gar were more frequently detected in nearshore bay habitat than in nearshore drain habitat (Figure 15). Larval Spotted and Longnose gars were caught together at four dip net sites, all in the nearshore zone in Rondeau Bay.

Light Trap Sampling

The 162 light trap sets had a mean soak time of 18.11 hours per trap (range: 16.38 – 19.90 hours), and a mean glow time of 6.04 hours per trap (4.08 – 7.98 hours) (Table 6). However, light traps malfunctioned (i.e., bottom tray detached with the sample not retained) at six sites, and as a consequence only 156 of the 162 trap sets were considered valid samples in this study. Larval fishes were captured in 137 traps (88% of sites) and processed in bulk by site. In total, 28 species were identified within the bulk light trap samples (Table 3). At sites where larval fishes were captured, a mean of 4.8 species per site were detected, ranging from one to 12 species per site (Appendix A). Overall, the most frequently detected species in light traps were Common Carp (detected in 52.6% of light traps), Pumpkinseed (51.3%), Golden Shiner (50.6%), and Bluegill (47.4%) (Figure 9b). Common Carp, Pumpkinseed, and Bluegill were the three most frequently detected species at drain sites, while Golden Shiner, Bluntnose Minnow

(*Pimephales notatus*), and Spottail Shiner were the three most frequently detected species at bay sites. No gar were detected in light traps. Thirteen species were detected in light traps that were not detected with dip nets (Table 3).

HABITAT SAMPLING

Continuous water temperature data for May 1 to June 30, 2018 is summarized in Appendix B as mean daily water temperature for each of the four data loggers in Bates-Bloomfield and Mcdougall drains. During the larval sampling period (May 29 to June 26) the mean daily water temperature in Bates-Bloomfield Drain was 22.99°C and 21.87°C at the mouth and upstream logger locations, respectively, and in Mcdougall Drain was 22.45°C and 19.39°C at the mouth and upstream locations, respectively. Grand mean daily water temperature across all four data loggers was 21.67°C (16.46 – 27.05°C) and is depicted in Figure 13.

Dip Net Sampling

At sites sampled by dip net, the mean air temperature was 22.5°C (14.8 – 31.6°C), mean water temperature was 22.41°C (17.30 – 27.09°C), mean conductivity was 434.0 µS (231.5 – 753.0 µS), mean dissolved oxygen was 8.37 mg/L (1.36 – 17.73 mg/L), mean pH was 8.24 (7.40 – 9.17), mean turbidity was 21.94 NTU (0.72 – 134.14 NTU), mean turbidity tube was 0.46 m (0.11 – >1.20 m), and mean depth was 0.92 m (0.40 – 1.86 m) (Table 7a). The most common dominant riparian vegetation class was herbaceous (mean 66% composition per site), with mean 16% none, 13% deciduous, 4% coniferous, and 1% shrubs (Table 8a). The most common dominant aquatic vegetation class was open water (mean 72% composition), with mean 13% submerged, 9% emergent, and 7% floating aquatic vegetation. The mean rake score for submerged aquatic vegetation was 1 (range 0 – 3), and for filamentous algae was 0 (range 0 – 3). The three most commonly occurring macrophyte species across dip net sites were Coontail (*Ceratophyllum demersum*; 50.0% of sites), Pondweed sp. (*Potamogeton* sp.; 27.8%), and Milfoil sp. (*Myriophyllum* sp.; 23.7%) (Table 9a, Figure 16).

At dip net sites where larval Spotted Gar were detected, the mean air temperature was 22.9°C (range: 17.3 – 31.1°C), mean water temperature was 23.27°C (17.76 – 26.68°C), mean conductivity was 496.0 µS (266.6 – 629.0 µS), mean dissolved oxygen was 6.24 mg/L (2.49 – 11.77 mg/L), mean pH was 7.88 (7.56 – 8.99), mean turbidity was 23.2 NTU (3.25 – 59.91 NTU), mean turbidity tube was 0.42 m (0.15 – 1.03 m), and mean depth was 0.80 m (0.47 – 1.46 m). The most common dominant riparian vegetation class was herbaceous (mean 84% composition per site), with mean 8% deciduous, 5% coniferous, and 4% none. The riparian vegetation at 71% of sites where larval Spotted Gar were captured was classified as 100% herbaceous. The most common dominant aquatic vegetation class was open water (mean 59% composition per site), with mean 16% submerged, 15% emergent, and 10% floating. The mean rake score for submerged aquatic vegetation at sites where larval Spotted Gar was detected was 1 (range: 0 – 3), and mean rake score for filamentous algae was 0 (range: 0 – 2). The most commonly occurring macrophytes species at sites where larval Spotted Gar was detected were Coontail (71.4% of sites), Milfoil sp. (42.9%), Water celery (*Vallisneria americana*; 32.1%, and Pondweed sp. (32.1%) (Figure 16).

Light Trap Sampling

At sites sampled by light trap, the mean air temperature was 23.4°C (range: 15.2 – 36.4°C), mean water temperature was 23.30°C (18.75 – 27.90°C), mean conductivity was 443.1 µS (235.2 – 739.0 µS), mean dissolved oxygen was 9.53 mg/L (2.46 – 18.76 mg/L), mean pH was 8.36 (7.54 – 9.50), mean turbidity was 25.07 NTU (1.50 – 204.21 NTU), mean turbidity tube was

0.45 m (0.06 – >1.20 m), and mean depth was 0.93 m (0.34 – 1.81 m) (Table 7b). The most common dominant riparian vegetation type was herbaceous (mean 63% composition per site), with mean 17% none, 12% deciduous, 6% coniferous, and 2% shrubs (Table 8b). The most common dominant aquatic vegetation class was open water (mean 76% composition), with mean 10% emergent, 8% submerged, and 5% floating aquatic vegetation. The mean rake score for submerged aquatic vegetation was 1 (0 – 3), and for filamentous algae was 0 (0 – 2). The three most commonly occurring species of macrophytes present across light trap sites were Coontail, Milfoil sp., and algae (Table 9b, Figure 16).

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Table 1. *Number of a) dip net sites, and b) light trap sites in each habitat type (bay or drain) and sampling zone (nearshore or offshore).*

a) Dip net sites

Habitat type	Nearshore	Offshore	Total
Bay	63	30	**93**
Drain	76	25	**101**
Total	**139**	**55**	**194**

b) Light trap sites

Habitat type	Nearshore	Offshore	Total
Bay	59	21	**80**
Drain	60	22	**82**
Total	**119**	**43**	**162**

Table 2. *Site locations, sampling date, and sampling zone for a) dip net, and b) light trap sites targeting larval Spotted Gar in Rondeau Bay and two tributaries, spring 2018. Site code is a unique identifier indicating the sampling method (dip net DN, or light trap LT), habitat (drain D or bay B), and numbered numerically in order of sampling date.*

a) Dip net sites

Site code	Field number	Date	Latitude	Longitude	Waterbody name	Sampling zone	Stream width (m)	Distance from shore (m)
DN-B-01	2018-LFS-SPG-290518-252A	29-May-18	42.31216	-81.89824	Rondeau Bay	Offshore	*	112.0
DN-B-02	2018-LFS-SPG-300518-141A	30-May-18	42.33208	-81.85583	Rondeau Bay	Nearshore	*	3.0
DN-B-03	2018-LFS-SPG-300518-142A	30-May-18	42.33094	-81.85628	Rondeau Bay	Offshore	*	138.0
DN-B-04	2018-LFS-SPG-300518-151A	30-May-18	42.33331	-81.85397	Rondeau Bay	Nearshore	*	20.0
DN-B-05	2018-LFS-SPG-300518-151C	30-May-18	42.33215	-81.85493	Rondeau Bay	Nearshore	*	5.0
DN-B-06	2018-LFS-SPG-300518-152A	30-May-18	42.33254	-81.85316	Rondeau Bay	Offshore	*	115.0
DN-B-07	2018-LFS-SPG-300518-152C	30-May-18	42.33142	-81.85438	Rondeau Bay	Offshore	*	111.0
DN-B-08	2018-LFS-SPG-300518-152E	30-May-18	42.33201	-81.85364	Rondeau Bay	Offshore	*	111.1
DN-B-09	2018-LFS-SPG-300518-161A	30-May-18	42.33332	-81.85274	Rondeau Bay	Nearshore	*	13.0
DN-B-10	2018-LFS-SPG-050618-141A	05-Jun-18	42.33195	-81.85696	Rondeau Bay	Nearshore	*	17.2
DN-B-11	2018-LFS-SPG-050618-151A	05-Jun-18	42.33319	-81.85353	Rondeau Bay	Nearshore	*	10.7
DN-B-12	2018-LFS-SPG-050618-152A	05-Jun-18	42.33287	-81.85294	Rondeau Bay	Offshore	*	56.1
DN-B-13	2018-LFS-SPG-050618-161A	05-Jun-18	42.33332	-81.85271	Rondeau Bay	Nearshore	*	15.1
DN-B-14	2018-LFS-SPG-050618-241A	05-Jun-18	42.30877	-81.89919	Rondeau Bay	Nearshore	*	8.0
DN-B-15	2018-LFS-SPG-050618-251A	05-Jun-18	42.31065	-81.89932	Rondeau Bay	Nearshore	*	8.0
DN-B-16	2018-LFS-SPG-050618-252A	05-Jun-18	42.31056	-81.89840	Rondeau Bay	Offshore	*	63.5
DN-B-17	2018-LFS-SPG-050618-261A	05-Jun-18	42.31266	-81.89851	Rondeau Bay	Nearshore	*	0.0
DN-B-18	2018-LFS-SPG-060618-141A	06-Jun-18	42.33211	-81.85580	Rondeau Bay	Nearshore	*	4.0
DN-B-19	2018-LFS-SPG-060618-142A	06-Jun-18	42.33172	-81.85609	Rondeau Bay	Offshore	*	50.0
DN-B-20	2018-LFS-SPG-060618-151A	06-Jun-18	42.33240	-81.85454	Rondeau Bay	Nearshore	*	20.7
DN-B-21	2018-LFS-SPG-060618-161A	06-Jun-18	42.33291	-81.85176	Rondeau Bay	Nearshore	*	28.1
DN-B-22	2018-LFS-SPG-060618-241A	06-Jun-18	42.30933	-81.89869	Rondeau Bay	Nearshore	*	0.0
DN-B-23	2018-LFS-SPG-060618-251A	06-Jun-18	42.31087	-81.89960	Rondeau Bay	Nearshore	*	0.0
DN-B-24	2018-LFS-SPG-060618-252A	06-Jun-18	42.31209	-81.89851	Rondeau Bay	Offshore	*	54.7
DN-B-25	2018-LFS-SPG-060618-261A	06-Jun-18	42.31373	-81.89570	Rondeau Bay	Nearshore	*	12.3
DN-B-26	2018-LFS-SPG-070618-141A	07-Jun-18	42.33213	-81.85641	Rondeau Bay	Nearshore	*	5.0
DN-B-27	2018-LFS-SPG-070618-151A	07-Jun-18	42.33332	-81.85423	Rondeau Bay	Nearshore	24.4	0.0
DN-B-28	2018-LFS-SPG-070618-161A	07-Jun-18	42.33259	-81.85091	Rondeau Bay	Nearshore	*	24.4
DN-B-29	2018-LFS-SPG-070618-162A	07-Jun-18	42.33245	-81.85076	Rondeau Bay	Offshore	*	40.9
DN-B-30	2018-LFS-SPG-070618-241A	07-Jun-18	42.30993	-81.89868	Rondeau Bay	Nearshore	*	0.0
DN-B-31	2018-LFS-SPG-070618-242A	07-Jun-18	42.31027	-81.89822	Rondeau Bay	Offshore	*	74.2
DN-B-32	2018-LFS-SPG-070618-251A	07-Jun-18	42.31175	-81.89951	Rondeau Bay	Nearshore	*	0.0
DN-B-33	2018-LFS-SPG-070618-261A	07-Jun-18	42.31339	-81.89603	Rondeau Bay	Nearshore	*	8.0
DN-B-34	2018-LFS-SPG-120618-241A	12-Jun-18	42.30820	-81.90047	Rondeau Bay	Nearshore	*	11.8

Site code	Field number	Date	Latitude	Longitude	Waterbody name	Sampling zone	Stream width (m)	Distance from shore (m)
DN-B-35	2018-LFS-SPG-120618-242A	12-Jun-18	42.30793	-81.89961	Rondeau Bay	Offshore	*	71.5
DN-B-36	2018-LFS-SPG-120618-251A	12-Jun-18	42.31232	-81.89906	Rondeau Bay	Nearshore	*	0.0
DN-B-37	2018-LFS-SPG-120618-261A	12-Jun-18	42.31264	-81.89687	Rondeau Bay	Nearshore	*	24.2
DN-B-38	2018-LFS-SPG-130618-241A	13-Jun-18	42.30988	-81.89864	Rondeau Bay	Nearshore	*	0.0
DN-B-39	2018-LFS-SPG-130618-251A	13-Jun-18	42.31143	-81.89959	Rondeau Bay	Nearshore	*	0.0
DN-B-40	2018-LFS-SPG-130618-252A	13-Jun-18	42.31128	-81.89894	Rondeau Bay	Offshore	*	297.4
DN-B-41	2018-LFS-SPG-130618-261A	13-Jun-18	42.31281	-81.89792	Rondeau Bay	Nearshore	*	0.0
DN-B-42	2018-LFS-SPG-140618-141A	14-Jun-18	42.33205	-81.85659	Rondeau Bay	Nearshore	*	14.3
DN-B-43	2018-LFS-SPG-140618-141C	14-Jun-18	42.33209	-81.85576	Rondeau Bay	Nearshore	23.4	4.0
DN-B-44	2018-LFS-SPG-140618-142A	14-Jun-18	42.33175	-81.85683	Rondeau Bay	Offshore	*	49.3
DN-B-45	2018-LFS-SPG-140618-151A	14-Jun-18	42.33244	-81.85460	Rondeau Bay	Nearshore	*	39.2
DN-B-46	2018-LFS-SPG-140618-151C	14-Jun-18	42.33335	-81.85397	Rondeau Bay	Nearshore	*	20.0
DN-B-47	2018-LFS-SPG-140618-152A	14-Jun-18	42.33220	-81.85426	Rondeau Bay	Offshore	*	46.8
DN-B-48	2018-LFS-SPG-140618-161A	14-Jun-18	42.33333	-81.85265	Rondeau Bay	Nearshore	*	9.8
DN-B-49	2018-LFS-SPG-140618-161C	14-Jun-18	42.33301	-81.85164	Rondeau Bay	Nearshore	*	16.8
DN-B-50	2018-LFS-SPG-140618-241A	14-Jun-18	42.30889	-81.89912	Rondeau Bay	Nearshore	*	0.0
DN-B-51	2018-LFS-SPG-140618-251A	14-Jun-18	42.31253	-81.89876	Rondeau Bay	Nearshore	*	0.0
DN-B-52	2018-LFS-SPG-140618-252A	14-Jun-18	42.31152	-81.89861	Rondeau Bay	Offshore	*	84.5
DN-B-53	2018-LFS-SPG-140618-261A	14-Jun-18	42.31305	-81.89626	Rondeau Bay	Nearshore	*	0.0
DN-B-54	2018-LFS-SPG-150618-141A	15-Jun-18	42.33221	-81.85556	Rondeau Bay	Nearshore	*	9.4
DN-B-55	2018-LFS-SPG-150618-151A	15-Jun-18	42.33217	-81.85493	Rondeau Bay	Nearshore	*	9.2
DN-B-56	2018-LFS-SPG-150618-161A	15-Jun-18	42.33307	-81.85175	Rondeau Bay	Nearshore	*	8.0
DN-B-57	2018-LFS-SPG-150618-162A	15-Jun-18	42.33254	-81.85171	Rondeau Bay	Offshore	*	68.5
DN-B-58	2018-LFS-SPG-180618-241A	18-Jun-18	42.30970	-81.89854	Rondeau Bay	Nearshore	*	2.0
DN-B-59	2018-LFS-SPG-180618-251A	18-Jun-18	42.31073	-81.89942	Rondeau Bay	Nearshore	*	0.0
DN-B-60	2018-LFS-SPG-180618-261A	18-Jun-18	42.31276	-81.89737	Rondeau Bay	Nearshore	*	0.0
DN-B-61	2018-LFS-SPG-180618-262A	18-Jun-18	42.31266	-81.89605	Rondeau Bay	Offshore	*	67.1
DN-B-62	2018-LFS-SPG-190618-142A	19-Jun-18	42.33162	-81.85544	Rondeau Bay	Offshore	*	57.9
DN-B-63	2018-LFS-SPG-190618-151A	19-Jun-18	42.33300	-81.85441	Rondeau Bay	Nearshore	118.5	47.6
DN-B-64	2018-LFS-SPG-190618-141A	19-Jun-18	42.33200	-81.85684	Rondeau Bay	Nearshore	*	15.1
DN-B-65	2018-LFS-SPG-190618-162A	19-Jun-18	42.33284	-81.85114	Rondeau Bay	Offshore	*	4.5
DN-B-66	2018-LFS-SPG-190618-241A	19-Jun-18	42.30847	-81.90005	Rondeau Bay	Nearshore	*	0.0
DN-B-67	2018-LFS-SPG-190618-251A	19-Jun-18	42.31202	-81.89933	Rondeau Bay	Nearshore	*	0.0
DN-B-68	2018-LFS-SPG-190618-252A	19-Jun-18	42.31079	-81.89876	Rondeau Bay	Offshore	*	58.0
DN-B-69	2018-LFS-SPG-190618-261A	19-Jun-18	42.31276	-81.89821	Rondeau Bay	Nearshore	*	0.0
DN-B-70	2018-LFS-SPG-200618-141A	20-Jun-18	42.33208	-81.85612	Rondeau Bay	Nearshore	*	14.0
DN-B-71	2018-LFS-SPG-200618-141C	20-Jun-18	42.33209	-81.85525	Rondeau Bay	Nearshore	*	21.0
DN-B-72	2018-LFS-SPG-200618-151A	20-Jun-18	42.33222	-81.85476	Rondeau Bay	Nearshore	*	66.6
DN-B-73	2018-LFS-SPG-200618-151C	20-Jun-18	42.33275	-81.85436	Rondeau Bay	Nearshore	*	67.9
DN-B-74	2018-LFS-SPG-200618-151E	20-Jun-18	42.33330	-81.85372	Rondeau Bay	Nearshore	*	35.0
DN-B-75	2018-LFS-SPG-200618-161A	20-Jun-18	42.33332	-81.85235	Rondeau Bay	Nearshore	*	1.0

Site code	Field number	Date	Latitude	Longitude	Waterbody name	Sampling zone	Stream width (m)	Distance from shore (m)
DN-B-76	2018-LFS-SPG-200618-162A	20-Jun-18	42.33289	-81.85226	Rondeau Bay	Offshore	*	55.8
DN-B-77	2018-LFS-SPG-200618-162C	20-Jun-18	42.33330	-81.85275	Rondeau Bay	Offshore	*	12.1
DN-B-78	2018-LFS-SPG-200618-241A	20-Jun-18	42.30808	-81.90086	Rondeau Bay	Nearshore	*	12.2
DN-B-79	2018-LFS-SPG-200618-251A	20-Jun-18	42.31048	-81.89922	Rondeau Bay	Nearshore	*	2.0
DN-B-80	2018-LFS-SPG-200618-252A	20-Jun-18	42.31110	-81.89877	Rondeau Bay	Offshore	*	77.0
DN-B-81	2018-LFS-SPG-200618-261A	20-Jun-18	42.31274	-81.89716	Rondeau Bay	Nearshore	*	2.0
DN-B-82	2018-LFS-SPG-260618-141A	26-Jun-18	42.33214	-81.85519	Rondeau Bay	Nearshore	*	13.7
DN-B-83	2018-LFS-SPG-260618-142A	26-Jun-18	42.33160	-81.85610	Rondeau Bay	Offshore	*	64.5
DN-B-84	2018-LFS-SPG-260618-151A	26-Jun-18	42.33331	-81.85403	Rondeau Bay	Nearshore	136.9	19.4
DN-B-85	2018-LFS-SPG-260618-152A	26-Jun-18	42.33285	-81.85358	Rondeau Bay	Offshore	*	51.7
DN-B-86	2018-LFS-SPG-260618-161A	26-Jun-18	42.33272	-81.85082	Rondeau Bay	Nearshore	*	9.0
DN-B-87	2018-LFS-SPG-260618-162A	26-Jun-18	42.33287	-81.85255	Rondeau Bay	Offshore	*	66.4
DN-B-88	2018-LFS-SPG-260618-241A	26-Jun-18	42.30931	-81.89866	Rondeau Bay	Nearshore	*	2.0
DN-B-89	2018-LFS-SPG-260618-242A	26-Jun-18	42.30952	-81.89833	Rondeau Bay	Offshore	*	35.0
DN-B-90	2018-LFS-SPG-260618-251A	26-Jun-18	42.31160	-81.89951	Rondeau Bay	Nearshore	*	2.0
DN-B-91	2018-LFS-SPG-260618-252A	26-Jun-18	42.31138	-81.89861	Rondeau Bay	Offshore	*	85.0
DN-B-92	2018-LFS-SPG-260618-261A	26-Jun-18	42.31279	-81.89761	Rondeau Bay	Nearshore	*	0.0
DN-B-93	2018-LFS-SPG-260618-262A	26-Jun-18	42.31247	-81.89668	Rondeau Bay	Offshore	*	44.6
DN-D-001	2018-LFS-SPG-300518-111A	30-May-18	42.33902	-81.85909	Bates-Bloomfield Drain	Nearshore	16.0	2.0
DN-D-002	2018-LFS-SPG-300518-111C	30-May-18	42.33863	-81.85870	Bates-Bloomfield Drain	Nearshore	21.0	0.0
DN-D-003	2018-LFS-SPG-300518-131A	30-May-18	42.33437	-81.85545	Bates-Bloomfield Drain	Nearshore	63.4	21.9
DN-D-004	2018-LFS-SPG-300518-131C	30-May-18	42.33316	-81.85564	Bates-Bloomfield Drain	Nearshore	*	11.0
DN-D-005	2018-LFS-SPG-050618-111A	05-Jun-18	42.33859	-81.85849	Bates-Bloomfield Drain	Nearshore	*	0.0
DN-D-006	2018-LFS-SPG-050618-121A	05-Jun-18	42.33694	-81.85766	Bates-Bloomfield Drain	Nearshore	23.2	0.0
DN-D-007	2018-LFS-SPG-050618-122A	05-Jun-18	42.33524	-81.85654	Bates-Bloomfield Drain	Offshore	53.6	19.1
DN-D-008	2018-LFS-SPG-050618-131A	05-Jun-18	42.33478	-81.85535	Bates-Bloomfield Drain	Nearshore	55.0	0.0
DN-D-009	2018-LFS-SPG-060618-111A	06-Jun-18	42.33826	-81.85822	Bates-Bloomfield Drain	Nearshore	13.8	0.0
DN-D-010	2018-LFS-SPG-060618-111C	06-Jun-18	42.33873	-81.85867	Bates-Bloomfield Drain	Nearshore	10.3	0.0
DN-D-011	2018-LFS-SPG-060618-121A	06-Jun-18	42.33551	-81.85638	Bates-Bloomfield Drain	Nearshore	45.8	0.0
DN-D-012	2018-LFS-SPG-060618-121C	06-Jun-18	42.33644	-81.85735	Bates-Bloomfield Drain	Nearshore	35.5	0.0
DN-D-013	2018-LFS-SPG-060618-131A	06-Jun-18	42.33448	-81.85544	Bates-Bloomfield Drain	Nearshore	24.7	0.0
DN-D-014	2018-LFS-SPG-060618-132A	06-Jun-18	42.33472	-81.85575	Bates-Bloomfield Drain	Offshore	57.2	27.7
DN-D-015	2018-LFS-SPG-070618-112A	07-Jun-18	42.33824	-81.85818	Bates-Bloomfield Drain	Offshore	15.8	10.8
DN-D-016	2018-LFS-SPG-070618-131A	07-Jun-18	42.33322	-81.85519	Bates-Bloomfield Drain	Nearshore	15.0	0.0
DN-D-017	2018-LFS-SPG-130618-111A	13-Jun-18	42.33908	-81.85922	Bates-Bloomfield Drain	Nearshore	17.0	5.0
DN-D-018	2018-LFS-SPG-130618-111C	13-Jun-18	42.33814	-81.85811	Bates-Bloomfield Drain	Nearshore	16.2	2.0
DN-D-019	2018-LFS-SPG-130618-112A	13-Jun-18	42.33783	-81.85766	Bates-Bloomfield Drain	Offshore	20.9	10.0
DN-D-020	2018-LFS-SPG-130618-121A	13-Jun-18	42.33620	-81.85755	Bates-Bloomfield Drain	Nearshore	31.1	2.0
DN-D-021	2018-LFS-SPG-130618-121C	13-Jun-18	42.33516	-81.85586	Bates-Bloomfield Drain	Nearshore	59.5	2.0
DN-D-022	2018-LFS-SPG-130618-122A	13-Jun-18	42.33597	-81.85716	Bates-Bloomfield Drain	Offshore	39.7	19.2
DN-D-023	2018-LFS-SPG-130618-131A	13-Jun-18	42.33320	-81.85531	Bates-Bloomfield Drain	Nearshore	31.0	20.4

Site code	Field number	Date	Latitude	Longitude	Waterbody name	Sampling zone	Stream width (m)	Distance from shore (m)
DN-D-024	2018-LFS-SPG-130618-131C	13-Jun-18	42.33441	-81.85506	Bates-Bloomfield Drain	Nearshore	15.8	0.0
DN-D-025	2018-LFS-SPG-150618-111A	15-Jun-18	42.33831	-81.85822	Bates-Bloomfield Drain	Nearshore	14.5	1.0
DN-D-026	2018-LFS-SPG-150618-121A	15-Jun-18	42.33638	-81.85773	Bates-Bloomfield Drain	Nearshore	36.0	1.0
DN-D-027	2018-LFS-SPG-150618-131A	15-Jun-18	42.33421	-81.85561	Bates-Bloomfield Drain	Nearshore	24.4	2.0
DN-D-028	2018-LFS-SPG-150618-132A	15-Jun-18	42.33329	-81.85490	Bates-Bloomfield Drain	Offshore	21.3	10.0
DN-D-029	2018-LFS-SPG-180618-111A	18-Jun-18	42.33856	-81.85867	Bates-Bloomfield Drain	Nearshore	13.8	1.0
DN-D-030	2018-LFS-SPG-180618-112A	18-Jun-18	42.33807	-81.85794	Bates-Bloomfield Drain	Offshore	16.0	6.0
DN-D-031	2018-LFS-SPG-180618-121A	18-Jun-18	42.33547	-81.85630	Bates-Bloomfield Drain	Nearshore	52.5	3.0
DN-D-032	2018-LFS-SPG-180618-131A	18-Jun-18	42.33329	-81.85490	Bates-Bloomfield Drain	Nearshore	21.3	10.0
DN-D-033	2018-LFS-SPG-190618-111A	19-Jun-18	42.33862	-81.85854	Bates-Bloomfield Drain	Nearshore	16.5	1.5
DN-D-034	2018-LFS-SPG-190618-121A	19-Jun-18	42.33527	-81.85677	Bates-Bloomfield Drain	Nearshore	50.0	1.0
DN-D-035	2018-LFS-SPG-190618-122A	19-Jun-18	42.33586	-81.85701	Bates-Bloomfield Drain	Offshore	44.8	20.9
DN-D-036	2018-LFS-SPG-190618-131A	19-Jun-18	42.33381	-81.85538	Bates-Bloomfield Drain	Nearshore	16.7	0.0
DN-D-037	2018-LFS-SPG-200618-111A	20-Jun-18	42.33765	-81.85766	Bates-Bloomfield Drain	Nearshore	20.6	1.5
DN-D-038	2018-LFS-SPG-200618-121A	20-Jun-18	42.33699	-81.85764	Bates-Bloomfield Drain	Nearshore	22.2	1.5
DN-D-039	2018-LFS-SPG-200618-131A	20-Jun-18	42.33477	-81.85535	Bates-Bloomfield Drain	Nearshore	54.4	1.0
DN-D-040	2018-LFS-SPG-200618-132A	20-Jun-18	42.33330	-81.85453	Bates-Bloomfield Drain	Offshore	12.0	3.0
DN-D-041	2018-LFS-SPG-260618-111A	26-Jun-18	42.33811	-81.85786	Bates-Bloomfield Drain	Nearshore	15.6	0.5
DN-D-042	2018-LFS-SPG-260618-111C	26-Jun-18	42.33726	-81.85768	Bates-Bloomfield Drain	Nearshore	27.4	1.0
DN-D-043	2018-LFS-SPG-260618-112A	26-Jun-18	42.33774	-81.85754	Bates-Bloomfield Drain	Offshore	23.8	10.1
DN-D-044	2018-LFS-SPG-260618-121A	26-Jun-18	42.33650	-81.85780	Bates-Bloomfield Drain	Nearshore	41.2	2.0
DN-D-045	2018-LFS-SPG-260618-121C	26-Jun-18	42.33498	-81.85651	Bates-Bloomfield Drain	Nearshore	55.4	1.0
DN-D-046	2018-LFS-SPG-260618-122A	26-Jun-18	42.33544	-81.85659	Bates-Bloomfield Drain	Offshore	57.6	27.7
DN-D-047	2018-LFS-SPG-260618-131A	26-Jun-18	42.33455	-81.85590	Bates-Bloomfield Drain	Nearshore	52.1	1.0
DN-D-048	2018-LFS-SPG-260618-131C	26-Jun-18	42.33323	-81.85495	Bates-Bloomfield Drain	Nearshore	16.8	0.0
DN-D-049	2018-LFS-SPG-260618-132A	26-Jun-18	42.33485	-81.85585	Bates-Bloomfield Drain	Offshore	60.5	28.3
DN-D-050	2018-LFS-SPG-290518-211A	29-May-18	42.31646	-81.90572	Mcdougall Drain	Nearshore	10.0	3.0
DN-D-051	2018-LFS-SPG-290518-221A	29-May-18	42.31505	-81.90306	Mcdougall Drain	Nearshore	16.0	4.0
DN-D-052	2018-LFS-SPG-290518-231A	29-May-18	42.31274	-81.90138	Mcdougall Drain	Nearshore	20.0	0.0
DN-D-053	2018-LFS-SPG-290518-232A	29-May-18	42.31350	-81.90171	Mcdougall Drain	Offshore	25.0	9.0
DN-D-054	2018-LFS-SPG-050618-211A	05-Jun-18	42.31631	-81.90556	Mcdougall Drain	Nearshore	15.0	0.0
DN-D-055	2018-LFS-SPG-050618-212A	05-Jun-18	42.31714	-81.90656	Mcdougall Drain	Offshore	12.0	6.0
DN-D-056	2018-LFS-SPG-050618-221A	05-Jun-18	42.31431	-81.90199	Mcdougall Drain	Nearshore	25.0	0.0
DN-D-057	2018-LFS-SPG-050618-231A	05-Jun-18	42.31229	-81.90104	Mcdougall Drain	Nearshore	28.2	2.0
DN-D-058	2018-LFS-SPG-060618-211A	06-Jun-18	42.31673	-81.90612	Mcdougall Drain	Nearshore	10.0	4.0
DN-D-059	2018-LFS-SPG-060618-221A	06-Jun-18	42.31567	-81.90411	Mcdougall Drain	Nearshore	15.0	0.5
DN-D-060	2018-LFS-SPG-060618-222A	06-Jun-18	42.31467	-81.90266	Mcdougall Drain	Offshore	24.3	5.0
DN-D-061	2018-LFS-SPG-060618-231A	06-Jun-18	42.31323	-81.90157	Mcdougall Drain	Nearshore	26.0	0.0
DN-D-062	2018-LFS-SPG-070618-211A	07-Jun-18	42.31766	-81.90675	Mcdougall Drain	Nearshore	15.0	0.0
DN-D-063	2018-LFS-SPG-070618-221A	07-Jun-18	42.31537	-81.90355	Mcdougall Drain	Nearshore	11.3	0.0
DN-D-064	2018-LFS-SPG-070618-231A	07-Jun-18	42.31256	-81.90158	Mcdougall Drain	Nearshore	49.2	1.0

Site code	Field number	Date	Latitude	Longitude	Waterbody name	Sampling zone	Stream width (m)	Distance from shore (m)
DN-D-065	2018-LFS-SPG-070618-232A	07-Jun-18	42.31288	-81.90165	Mcdougall Drain	Offshore	33.3	12.3
DN-D-066	2018-LFS-SPG-120618-211A	12-Jun-18	42.31582	-81.90458	Mcdougall Drain	Nearshore	12.4	0.0
DN-D-067	2018-LFS-SPG-120618-212A	12-Jun-18	42.31652	-81.90593	Mcdougall Drain	Offshore	12.0	2.0
DN-D-068	2018-LFS-SPG-120618-221A	12-Jun-18	42.31469	-81.90244	Mcdougall Drain	Nearshore	19.3	0.0
DN-D-069	2018-LFS-SPG-120618-231A	12-Jun-18	42.31219	-81.90092	Mcdougall Drain	Nearshore	19.1	0.0
DN-D-070	2018-LFS-SPG-130618-211A	13-Jun-18	42.31736	-81.90672	Mcdougall Drain	Nearshore	9.2	0.0
DN-D-071	2018-LFS-SPG-130618-221A	13-Jun-18	42.31552	-81.90403	Mcdougall Drain	Nearshore	16.2	0.0
DN-D-072	2018-LFS-SPG-130618-222A	13-Jun-18	42.31521	-81.90340	Mcdougall Drain	Offshore	19.2	5.0
DN-D-073	2018-LFS-SPG-130618-231A	13-Jun-18	42.31306	-81.90150	Mcdougall Drain	Nearshore	28.6	0.0
DN-D-074	2018-LFS-SPG-140618-211A	14-Jun-18	42.31618	-81.90530	Mcdougall Drain	Nearshore	9.2	0.0
DN-D-075	2018-LFS-SPG-140618-221A	14-Jun-18	42.31539	-81.90353	Mcdougall Drain	Nearshore	17.3	17.3
DN-D-076	2018-LFS-SPG-140618-231A	14-Jun-18	42.31318	-81.90178	Mcdougall Drain	Nearshore	24.9	0.0
DN-D-077	2018-LFS-SPG-140618-232A	14-Jun-18	42.31216	-81.90102	Mcdougall Drain	Offshore	29.0	11.1
DN-D-078	2018-LFS-SPG-180618-211A	18-Jun-18	42.31607	-81.90509	Mcdougall Drain	Nearshore	10.2	0.0
DN-D-079	2018-LFS-SPG-180618-221A	18-Jun-18	42.31546	-81.90364	Mcdougall Drain	Nearshore	16.0	0.0
DN-D-080	2018-LFS-SPG-180618-231A	18-Jun-18	42.31343	-81.90147	Mcdougall Drain	Nearshore	34.7	0.0
DN-D-081	2018-LFS-SPG-180618-232A	18-Jun-18	42.31248	-81.90139	Mcdougall Drain	Offshore	33.6	11.6
DN-D-082	2018-LFS-SPG-190618-211A	19-Jun-18	42.31781	-81.90682	Mcdougall Drain	Nearshore	10.0	0.0
DN-D-083	2018-LFS-SPG-190618-212A	19-Jun-18	42.31681	-81.90629	Mcdougall Drain	Offshore	10.0	2.0
DN-D-084	2018-LFS-SPG-190618-221A	19-Jun-18	42.31475	-81.90252	Mcdougall Drain	Nearshore	20.3	0.0
DN-D-085	2018-LFS-SPG-190618-231A	19-Jun-18	42.31290	-81.90147	Mcdougall Drain	Nearshore	28.9	0.0
DN-D-086	2018-LFS-SPG-200618-211A	20-Jun-18	42.31699	-81.90643	Mcdougall Drain	Nearshore	10.0	0.0
DN-D-087	2018-LFS-SPG-200618-211C	20-Jun-18	42.31603	-81.90474	Mcdougall Drain	Nearshore	15.4	0.0
DN-D-088	2018-LFS-SPG-200618-221A	20-Jun-18	42.31472	-81.90280	Mcdougall Drain	Nearshore	20.0	0.0
DN-D-089	2018-LFS-SPG-200618-221C	20-Jun-18	42.31378	-81.90163	Mcdougall Drain	Nearshore	24.1	0.0
DN-D-090	2018-LFS-SPG-200618-222A	20-Jun-18	42.31448	-81.90237	Mcdougall Drain	Offshore	18.5	5.0
DN-D-091	2018-LFS-SPG-200618-231A	20-Jun-18	42.31151	-81.90018	Mcdougall Drain	Nearshore	17.2	0.0
DN-D-092	2018-LFS-SPG-200618-231C	20-Jun-18	42.31179	-81.90070	Mcdougall Drain	Nearshore	18.0	0.0
DN-D-093	2018-LFS-SPG-250618-211A	25-Jun-18	42.31754	-81.90676	Mcdougall Drain	Nearshore	10.0	0.0
DN-D-094	2018-LFS-SPG-250618-211C	25-Jun-18	42.31689	-81.90633	Mcdougall Drain	Nearshore	9.8	0.0
DN-D-095	2018-LFS-SPG-250618-212A	25-Jun-18	42.31601	-81.90485	Mcdougall Drain	Offshore	14.2	5.0
DN-D-096	2018-LFS-SPG-250618-221A	25-Jun-18	42.31555	-81.90389	Mcdougall Drain	Nearshore	15.2	0.0
DN-D-097	2018-LFS-SPG-250618-221C	25-Jun-18	42.31504	-81.90324	Mcdougall Drain	Nearshore	13.0	0.0
DN-D-098	2018-LFS-SPG-250618-222A	25-Jun-18	42.31423	-81.90217	Mcdougall Drain	Offshore	24.5	11.1
DN-D-099	2018-LFS-SPG-260618-231A	26-Jun-18	42.31146	-81.90033	Mcdougall Drain	Nearshore	14.3	0.0
DN-D-100	2018-LFS-SPG-260618-231C	26-Jun-18	42.31189	-81.90052	Mcdougall Drain	Nearshore	16.8	0.0
DN-D-101	2018-LFS-SPG-260618-232A	26-Jun-18	42.31346	-81.90166	Mcdougall Drain	Offshore	33.6	11.8

b) Light trap sites

Site code	Field number	Date	Latitude	Longitude	Waterbody name	Sampling zone	Stream width (m)	Distance from shore (m)
LT-B-01	2018-LFS-SPG-300518-141B	30-May-18	42.33202	-81.85668	Rondeau Bay	Nearshore	*	10.3
LT-B-02	2018-LFS-SPG-300518-142B	30-May-18	42.33144	-81.85470	Rondeau Bay	Offshore	*	83.7
LT-B-03	2018-LFS-SPG-300518-151B	30-May-18	42.33213	-81.85483	Rondeau Bay	Nearshore	*	9.7
LT-B-04	2018-LFS-SPG-300518-151D	30-May-18	42.33332	-81.85313	Rondeau Bay	Nearshore	*	5
LT-B-05	2018-LFS-SPG-300518-151F	30-May-18	42.33281	-81.85429	Rondeau Bay	Nearshore	*	45.9
LT-B-06	2018-LFS-SPG-300518-152B	30-May-18	42.33176	-81.85402	Rondeau Bay	Offshore	*	91
LT-B-07	2018-LFS-SPG-300518-152D	30-May-18	42.33231	-81.85365	Rondeau Bay	Offshore	*	79
LT-B-08	2018-LFS-SPG-300518-152F	30-May-18	42.33273	-81.85296	Rondeau Bay	Offshore	*	75
LT-B-09	2018-LFS-SPG-040618-141B	04-Jun-18	42.33204	-81.85612	Rondeau Bay	Nearshore	*	16.9
LT-B-10	2018-LFS-SPG-040618-142B	04-Jun-18	42.33169	-81.85626	Rondeau Bay	Offshore	*	58.6
LT-B-11	2018-LFS-SPG-040618-151B	04-Jun-18	42.33256	-81.85455	Rondeau Bay	Nearshore	*	52.3
LT-B-12	2018-LFS-SPG-040618-161B	04-Jun-18	42.33267	-81.85091	Rondeau Bay	Nearshore	*	16.4
LT-B-13	2018-LFS-SPG-040618-241B	04-Jun-18	42.30824	-81.90037	Rondeau Bay	Nearshore	*	9.4
LT-B-14	2018-LFS-SPG-040618-251B	04-Jun-18	42.31044	-81.89915	Rondeau Bay	Nearshore	*	9
LT-B-15	2018-LFS-SPG-040618-252B	04-Jun-18	42.31174	-81.89850	Rondeau Bay	Offshore	*	75
LT-B-16	2018-LFS-SPG-040618-261B	04-Jun-18	42.31292	-81.89653	Rondeau Bay	Nearshore	*	10
LT-B-17	2018-LFS-SPG-050618-141B	05-Jun-18	42.33202	-81.85538	Rondeau Bay	Nearshore	*	9
LT-B-18	2018-LFS-SPG-050618-151B	05-Jun-18	42.33329	-81.85413	Rondeau Bay	Nearshore	*	22.3
LT-B-19	2018-LFS-SPG-050618-152B	05-Jun-18	42.33270	-81.85294	Rondeau Bay	Offshore	*	73.3
LT-B-20	2018-LFS-SPG-050618-161B	05-Jun-18	42.33267	-81.85103	Rondeau Bay	Nearshore	*	24.7
LT-B-21	2018-LFS-SPG-050618-241B	05-Jun-18	42.30967	-81.89854	Rondeau Bay	Nearshore	*	2
LT-B-22	2018-LFS-SPG-050618-251B	05-Jun-18	42.31133	-81.89948	Rondeau Bay	Nearshore	*	10
LT-B-23	2018-LFS-SPG-050618-261B	05-Jun-18	42.31278	-81.89785	Rondeau Bay	Nearshore	*	3
LT-B-24	2018-LFS-SPG-050618-262B	05-Jun-18	42.31231	-81.89738	Rondeau Bay	Offshore	*	52
LT-B-25	2018-LFS-SPG-060618-141B	06-Jun-18	42.33205	-81.85674	Rondeau Bay	Nearshore	*	10
LT-B-26	2018-LFS-SPG-060618-142B	06-Jun-18	42.33165	-81.85608	Rondeau Bay	Offshore	*	58.9
LT-B-27	2018-LFS-SPG-060618-151B	06-Jun-18	42.33222	-81.85484	Rondeau Bay	Nearshore	*	2
LT-B-28	2018-LFS-SPG-060618-161B	06-Jun-18	42.33263	-81.85125	Rondeau Bay	Nearshore	*	35
LT-B-29	2018-LFS-SPG-060618-241B	06-Jun-18	42.30902	-81.89902	Rondeau Bay	Nearshore	*	0
LT-B-30	2018-LFS-SPG-060618-242B	06-Jun-18	42.30978	-81.89818	Rondeau Bay	Offshore	*	33
LT-B-31	2018-LFS-SPG-060618-251B	06-Jun-18	42.31205	-81.89921	Rondeau Bay	Nearshore	*	4
LT-B-32	2018-LFS-SPG-060618-261B	06-Jun-18	42.31262	-81.89727	Rondeau Bay	Nearshore	*	8.4
LT-B-33	2018-LFS-SPG-120618-141B	12-Jun-18	42.33189	-81.85712	Rondeau Bay	Nearshore	*	15.1
LT-B-34	2018-LFS-SPG-120618-142B	12-Jun-18	42.33152	-81.85632	Rondeau Bay	Offshore	*	74.3
LT-B-35	2018-LFS-SPG-120618-151B	12-Jun-18	42.33310	-81.85336	Rondeau Bay	Nearshore	*	14.3
LT-B-36	2018-LFS-SPG-120618-161B	12-Jun-18	42.33326	-81.85258	Rondeau Bay	Nearshore	*	19.8
LT-B-37	2018-LFS-SPG-120618-241B	12-Jun-18	42.30856	-81.89971	Rondeau Bay	Nearshore	*	6
LT-B-38	2018-LFS-SPG-120618-242B	12-Jun-18	42.30862	-81.89871	Rondeau Bay	Offshore	*	54.1
LT-B-39	2018-LFS-SPG-120618-251B	12-Jun-18	42.31019	-81.89889	Rondeau Bay	Nearshore	*	5

Site code	Field number	Date	Latitude	Longitude	Waterbody name	Sampling zone	Stream width (m)	Distance from shore (m)
LT-B-40	2018-LFS-SPG-120618-261B	12-Jun-18	42.31337	-81.89587	Rondeau Bay	Nearshore	*	8
LT-B-41	2018-LFS-SPG-130618-141B	13-Jun-18	42.33207	-81.85554	Rondeau Bay	Nearshore	*	0
LT-B-42	2018-LFS-SPG-130618-151B	13-Jun-18	42.33284	-81.85436	Rondeau Bay	Nearshore	*	0
LT-B-43	2018-LFS-SPG-130618-152B	13-Jun-18	42.33194	-81.85443	Rondeau Bay	Offshore	*	47.9
LT-B-44	2018-LFS-SPG-130618-161B	13-Jun-18	42.33298	-81.85157	Rondeau Bay	Nearshore	*	28.2
LT-B-45	2018-LFS-SPG-130618-241B	13-Jun-18	42.30987	-81.89864	Rondeau Bay	Nearshore	*	0
LT-B-46	2018-LFS-SPG-130618-251B	13-Jun-18	42.31192	-81.89944	Rondeau Bay	Nearshore	*	0
LT-B-47	2018-LFS-SPG-130618-261B	13-Jun-18	42.31273	-81.89842	Rondeau Bay	Nearshore	*	0
LT-B-48	2018-LFS-SPG-140618-141B	14-Jun-18	42.33211	-81.85663	Rondeau Bay	Nearshore	*	6
LT-B-49	2018-LFS-SPG-140618-151B	14-Jun-18	42.33228	-81.85471	Rondeau Bay	Nearshore	*	57.2
LT-B-50	2018-LFS-SPG-140618-161B	14-Jun-18	42.33250	-81.85073	Rondeau Bay	Nearshore	*	2.5
LT-B-51	2018-LFS-SPG-140618-162B	14-Jun-18	42.33258	-81.85151	Rondeau Bay	Offshore	*	52
LT-B-52	2018-LFS-SPG-140618-241B	14-Jun-18	42.30804	-81.90101	Rondeau Bay	Nearshore	*	5
LT-B-53	2018-LFS-SPG-140618-251B	14-Jun-18	42.31071	-81.89938	Rondeau Bay	Nearshore	*	5
LT-B-54	2018-LFS-SPG-140618-261B	14-Jun-18	42.31340	-81.89595	Rondeau Bay	Nearshore	*	10
LT-B-55	2018-LFS-SPG-140618-261D	14-Jun-18	42.31268	-81.89687	Rondeau Bay	Nearshore	*	10
LT-B-56	2018-LFS-SPG-140618-262B	14-Jun-18	42.31217	-81.89777	Rondeau Bay	Offshore	*	82.5
LT-B-57	2018-LFS-SPG-180618-141B	18-Jun-18	42.33207	-81.85635	Rondeau Bay	Nearshore	*	11.4
LT-B-58	2018-LFS-SPG-180618-142B	18-Jun-18	42.33176	-81.85580	Rondeau Bay	Offshore	*	45.6
LT-B-59	2018-LFS-SPG-180618-151B	18-Jun-18	42.33332	-81.85395	Rondeau Bay	Nearshore	144.3	15.4
LT-B-60	2018-LFS-SPG-180618-161B	18-Jun-18	42.33332	-81.85237	Rondeau Bay	Nearshore	*	12.8
LT-B-61	2018-LFS-SPG-180618-241B	18-Jun-18	42.30895	-81.89904	Rondeau Bay	Nearshore	*	0
LT-B-62	2018-LFS-SPG-180618-251B	18-Jun-18	42.31021	-81.89898	Rondeau Bay	Nearshore	*	0
LT-B-63	2018-LFS-SPG-180618-252B	18-Jun-18	42.31155	-81.89856	Rondeau Bay	Offshore	*	89.2
LT-B-64	2018-LFS-SPG-180618-261B	18-Jun-18	42.31274	-81.89677	Rondeau Bay	Nearshore	*	9.7
LT-B-65	2018-LFS-SPG-190618-141B	19-Jun-18	42.33206	-81.85564	Rondeau Bay	Nearshore	*	6
LT-B-66	2018-LFS-SPG-190618-151B	19-Jun-18	42.33260	-81.85440	Rondeau Bay	Nearshore	*	64.6
LT-B-67	2018-LFS-SPG-190618-152B	19-Jun-18	42.33307	-81.85304	Rondeau Bay	Offshore	*	30.8
LT-B-68	2018-LFS-SPG-190618-161B	19-Jun-18	42.33315	-81.85181	Rondeau Bay	Nearshore	*	8
LT-B-69	2018-LFS-SPG-190618-241B	19-Jun-18	42.30932	-81.89867	Rondeau Bay	Nearshore	*	0
LT-B-70	2018-LFS-SPG-190618-242B	19-Jun-18	42.30921	-81.89804	Rondeau Bay	Offshore	*	59.9
LT-B-71	2018-LFS-SPG-190618-251B	19-Jun-18	42.31166	-81.89949	Rondeau Bay	Nearshore	*	0
LT-B-72	2018-LFS-SPG-190618-261B	19-Jun-18	42.31309	-81.89622	Rondeau Bay	Nearshore	*	12.4
LT-B-73	2018-LFS-SPG-200618-141B	20-Jun-18	42.33197	-81.85702	Rondeau Bay	Nearshore	*	20.1
LT-B-74	2018-LFS-SPG-200618-151B	20-Jun-18	42.33334	-81.85309	Rondeau Bay	Nearshore	*	7
LT-B-75	2018-LFS-SPG-200618-161B	20-Jun-18	42.33265	-81.85076	Rondeau Bay	Nearshore	*	5
LT-B-76	2018-LFS-SPG-200618-162B	20-Jun-18	42.33249	-81.85116	Rondeau Bay	Offshore	*	48
LT-B-77	2018-LFS-SPG-200618-241B	20-Jun-18	42.30913	-81.89875	Rondeau Bay	Nearshore	*	0
LT-B-78	2018-LFS-SPG-200618-251B	20-Jun-18	42.31095	-81.89968	Rondeau Bay	Nearshore	*	0
LT-B-79	2018-LFS-SPG-200618-261B	20-Jun-18	42.31374	-81.89568	Rondeau Bay	Nearshore	*	7
LT-B-80	2018-LFS-SPG-200618-262B	20-Jun-18	42.31223	-81.89693	Rondeau Bay	Offshore	*	56.5

Site code	Field number	Date	Latitude	Longitude	Waterbody name	Sampling zone	Stream width (m)	Distance from shore (m)
LT-D-01	2018-LFS-SPG-300518-111B	30-May-18	42.33728	-81.85744	Bates-Bloomfield Drain	Nearshore	25.8	0
LT-D-02	2018-LFS-SPG-300518-111D	30-May-18	42.33891	-81.85904	Bates-Bloomfield Drain	Nearshore	13.7	0
LT-D-03	2018-LFS-SPG-300518-111F	30-May-18	42.33822	-81.85804	Bates-Bloomfield Drain	Nearshore	16	2
LT-D-04	2018-LFS-SPG-300518-121B	30-May-18	42.33538	-81.85682	Bates-Bloomfield Drain	Nearshore	49	4
LT-D-05	2018-LFS-SPG-040618-111B	04-Jun-18	42.33896	-81.85910	Bates-Bloomfield Drain	Nearshore	13.2	0
LT-D-06	2018-LFS-SPG-040618-121B	04-Jun-18	42.33642	-81.85777	Bates-Bloomfield Drain	Nearshore	40.4	0
LT-D-07	2018-LFS-SPG-040618-131B	04-Jun-18	42.33316	-81.85576	Bates-Bloomfield Drain	Nearshore	55.4	1.5
LT-D-08	2018-LFS-SPG-040618-132B	04-Jun-18	42.33479	-81.85569	Bates-Bloomfield Drain	Offshore	56	20.1
LT-D-09	2018-LFS-SPG-050618-111B	05-Jun-18	42.33770	-81.85747	Bates-Bloomfield Drain	Nearshore	20.2	0
LT-D-10	2018-LFS-SPG-050618-121B	05-Jun-18	42.33566	-81.85715	Bates-Bloomfield Drain	Nearshore	44.8	0
LT-D-11	2018-LFS-SPG-050618-122B	05-Jun-18	42.33639	-81.85743	Bates-Bloomfield Drain	Offshore	46.3	11.8
LT-D-12	2018-LFS-SPG-050618-131B	05-Jun-18	42.33448	-81.85578	Bates-Bloomfield Drain	Nearshore	51.9	0
LT-D-13	2018-LFS-SPG-060618-111B	06-Jun-18	42.33790	-81.85765	Bates-Bloomfield Drain	Nearshore	14.5	0
LT-D-14	2018-LFS-SPG-060618-112B	06-Jun-18	42.33862	-81.85860	Bates-Bloomfield Drain	Offshore	15	6
LT-D-15	2018-LFS-SPG-060618-121B	06-Jun-18	42.33607	-81.85740	Bates-Bloomfield Drain	Nearshore	26.1	0
LT-D-16	2018-LFS-SPG-060618-131B	06-Jun-18	42.33390	-81.85551	Bates-Bloomfield Drain	Nearshore	14.4	0
LT-D-17	2018-LFS-SPG-120618-111B	12-Jun-18	42.33906	-81.85919	Bates-Bloomfield Drain	Nearshore	12.2	0
LT-D-18	2018-LFS-SPG-120618-112B	12-Jun-18	42.33840	-81.85831	Bates-Bloomfield Drain	Offshore	17.2	8.9
LT-D-19	2018-LFS-SPG-120618-121B	12-Jun-18	42.33666	-81.85770	Bates-Bloomfield Drain	Nearshore	33.2	0
LT-D-20	2018-LFS-SPG-120618-131B	12-Jun-18	42.33442	-81.85511	Bates-Bloomfield Drain	Nearshore	13.9	0
LT-D-21	2018-LFS-SPG-130618-111B	13-Jun-18	42.33826	-81.85807	Bates-Bloomfield Drain	Nearshore	15.9	1
LT-D-22	2018-LFS-SPG-130618-121B	13-Jun-18	42.33646	-81.85733	Bates-Bloomfield Drain	Nearshore	34	2
LT-D-23	2018-LFS-SPG-130618-122B	13-Jun-18	42.33572	-81.85683	Bates-Bloomfield Drain	Offshore	49.5	23.1
LT-D-24	2018-LFS-SPG-130618-131B	13-Jun-18	42.33331	-81.85467	Bates-Bloomfield Drain	Offshore	20.3	0
LT-D-25	2018-LFS-SPG-140618-111B	14-Jun-18	42.33875	-81.85868	Bates-Bloomfield Drain	Nearshore	13.2	2
LT-D-26	2018-LFS-SPG-140618-121B	14-Jun-18	42.33598	-81.85690	Bates-Bloomfield Drain	Nearshore	40.5	1.5
LT-D-27	2018-LFS-SPG-140618-131B	14-Jun-18	42.33354	-81.85551	Bates-Bloomfield Drain	Nearshore	19.6	2
LT-D-28	2018-LFS-SPG-140618-132B	14-Jun-18	42.33332	-81.85541	Bates-Bloomfield Drain	Offshore	31.6	15
LT-D-29	2018-LFS-SPG-180618-111B	18-Jun-18	42.33796	-81.85783	Bates-Bloomfield Drain	Nearshore	18.2	1
LT-D-30	2018-LFS-SPG-180618-112B	18-Jun-18	42.33748	-81.85754	Bates-Bloomfield Drain	Offshore	24.4	9.2
LT-D-31	2018-LFS-SPG-180618-121B	18-Jun-18	42.33615	-81.85715	Bates-Bloomfield Drain	Nearshore	29.2	2
LT-D-32	2018-LFS-SPG-180618-131B	18-Jun-18	42.33471	-81.85616	Bates-Bloomfield Drain	Nearshore	57.4	1.5
LT-D-33	2018-LFS-SPG-190618-111B	19-Jun-18	42.33729	-81.85743	Bates-Bloomfield Drain	Nearshore	24.5	2
LT-D-34	2018-LFS-SPG-190618-121B	19-Jun-18	42.33567	-81.85722	Bates-Bloomfield Drain	Nearshore	44.8	1
LT-D-35	2018-LFS-SPG-190618-122B	19-Jun-18	42.33557	-81.85675	Bates-Bloomfield Drain	Offshore	50.9	24.6
LT-D-36	2018-LFS-SPG-190618-131B	19-Jun-18	42.33320	-81.85542	Bates-Bloomfield Drain	Nearshore	26.3	4
LT-D-37	2018-LFS-SPG-200618-111B	20-Jun-18	42.33874	-81.85883	Bates-Bloomfield Drain	Nearshore	12.9	1
LT-D-38	2018-LFS-SPG-200618-121B	20-Jun-18	42.33683	-81.85738	Bates-Bloomfield Drain	Nearshore	22.9	1
LT-D-39	2018-LFS-SPG-200618-131B	20-Jun-18	42.33434	-81.85484	Bates-Bloomfield Drain	Nearshore	12.3	1
LT-D-40	2018-LFS-SPG-200618-132B	20-Jun-18	42.33462	-81.85561	Bates-Bloomfield Drain	Offshore	57	26.9
LT-D-41	2018-LFS-SPG-290518-211B	29-May-18	42.31580	-81.90459	Mcdougall Drain	Nearshore	10	1

Site code	Field number	Date	Latitude	Longitude	Waterbody name	Sampling zone	Stream width (m)	Distance from shore (m)
LT-D-42	2018-LFS-SPG-290518-212B	29-May-18	42.31615	-81.90518	Mcdougall Drain	Offshore	12	4
LT-D-43	2018-LFS-SPG-290518-221B	29-May-18	42.31452	-81.90227	Mcdougall Drain	Nearshore	15	0
LT-D-44	2018-LFS-SPG-290518-222B	29-May-18	42.31471	-81.90263	Mcdougall Drain	Offshore	28	0
LT-D-45	2018-LFS-SPG-290518-231B	29-May-18	42.31196	-81.90090	Mcdougall Drain	Nearshore	20	1
LT-D-46	2018-LFS-SPG-290518-232B	29-May-18	42.31140	-81.90004	Mcdougall Drain	Offshore	16	10
LT-D-47	2018-LFS-SPG-040618-211B	04-Jun-18	42.31757	-81.90681	Mcdougall Drain	Nearshore	11	1
LT-D-48	2018-LFS-SPG-040618-212B	04-Jun-18	42.31635	-81.90559	Mcdougall Drain	Offshore	12	6
LT-D-49	2018-LFS-SPG-040618-221B	04-Jun-18	42.31488	-81.90267	Mcdougall Drain	Nearshore	21.5	0
LT-D-50	2018-LFS-SPG-040618-231B	04-Jun-18	42.31264	-81.90105	Mcdougall Drain	Nearshore	44	0
LT-D-51	2018-LFS-SPG-050618-211B	05-Jun-18	42.31599	-81.90466	Mcdougall Drain	Nearshore	15	0
LT-D-52	2018-LFS-SPG-050618-221B	05-Jun-18	42.31432	-81.90234	Mcdougall Drain	Nearshore	23	0
LT-D-53	2018-LFS-SPG-050618-222B	05-Jun-18	42.31525	-81.90345	Mcdougall Drain	Offshore	19	9.8
LT-D-54	2018-LFS-SPG-050618-231B	05-Jun-18	42.31340	-81.90157	Mcdougall Drain	Nearshore	25	2
LT-D-55	2018-LFS-SPG-060618-211B	06-Jun-18	42.31693	-81.90643	Mcdougall Drain	Nearshore	11.2	0
LT-D-56	2018-LFS-SPG-060618-221B	06-Jun-18	42.31551	-81.90372	Mcdougall Drain	Nearshore	16.5	0
LT-D-57	2018-LFS-SPG-060618-231B	06-Jun-18	42.31306	-81.90150	Mcdougall Drain	Nearshore	26	0
LT-D-58	2018-LFS-SPG-060618-232B	06-Jun-18	42.31191	-81.90075	Mcdougall Drain	Offshore	21	6
LT-D-59	2018-LFS-SPG-120618-211B	12-Jun-18	42.31683	-81.90627	Mcdougall Drain	Nearshore	9	0
LT-D-60	2018-LFS-SPG-120618-212B	12-Jun-18	42.31653	-81.90590	Mcdougall Drain	Offshore	10.6	4
LT-D-61	2018-LFS-SPG-120618-221B	12-Jun-18	42.31509	-81.90312	Mcdougall Drain	Nearshore	16	0
LT-D-62	2018-LFS-SPG-120618-231B	12-Jun-18	42.31243	-81.90144	Mcdougall Drain	Nearshore	48.3	2
LT-D-63	2018-LFS-SPG-130618-211B	13-Jun-18	42.31609	-81.90488	Mcdougall Drain	Nearshore	13	3
LT-D-64	2018-LFS-SPG-130618-221B	13-Jun-18	42.31491	-81.90305	Mcdougall Drain	Nearshore	15	0
LT-D-65	2018-LFS-SPG-130618-222B	13-Jun-18	42.31558	-81.90405	Mcdougall Drain	Offshore	14	6
LT-D-66	2018-LFS-SPG-130618-231B	13-Jun-18	42.31337	-81.90179	Mcdougall Drain	Nearshore	22	0
LT-D-67	2018-LFS-SPG-140618-211B	14-Jun-18	42.31628	-81.90548	Mcdougall Drain	Nearshore	11.5	0
LT-D-68	2018-LFS-SPG-140618-221B	14-Jun-18	42.31390	-81.90166	Mcdougall Drain	Nearshore	21	0
LT-D-69	2018-LFS-SPG-140618-231B	14-Jun-18	42.31274	-81.90173	Mcdougall Drain	Nearshore	47.7	0
LT-D-70	2018-LFS-SPG-140618-232B	14-Jun-18	42.31227	-81.90112	Mcdougall Drain	Offshore	26.7	12.1
LT-D-71	2018-LFS-SPG-180618-211B	18-Jun-18	42.31602	-81.90499	Mcdougall Drain	Nearshore	10.1	0
LT-D-72	2018-LFS-SPG-180618-212B	18-Jun-18	42.31580	-81.90449	Mcdougall Drain	Offshore	12	3
LT-D-73	2018-LFS-SPG-180618-221B	18-Jun-18	42.31413	-81.90189	Mcdougall Drain	Nearshore	23.6	0
LT-D-74	2018-LFS-SPG-180618-231B	18-Jun-18	42.31300	-81.90178	Mcdougall Drain	Nearshore	21.6	0
LT-D-75	2018-LFS-SPG-190618-211B	19-Jun-18	42.31659	-81.90592	Mcdougall Drain	Nearshore	13	0
LT-D-76	2018-LFS-SPG-190618-221B	19-Jun-18	42.31527	-81.90356	Mcdougall Drain	Nearshore	14.8	0
LT-D-77	2018-LFS-SPG-190618-222B	19-Jun-18	42.31411	-81.90204	Mcdougall Drain	Offshore	25.5	11.4
LT-D-78	2018-LFS-SPG-190618-231B	19-Jun-18	42.31158	-81.90048	Mcdougall Drain	Nearshore	20	0
LT-D-79	2018-LFS-SPG-200618-211B	20-Jun-18	42.31593	-81.90478	Mcdougall Drain	Nearshore	16	0
LT-D-80	2018-LFS-SPG-200618-221B	20-Jun-18	42.31545	-81.90381	Mcdougall Drain	Nearshore	12.1	0
LT-D-81	2018-LFS-SPG-200618-231B	20-Jun-18	42.31215	-81.90089	Mcdougall Drain	Nearshore	20.5	0
LT-D-82	2018-LFS-SPG-200618-232B	20-Jun-18	42.31285	-81.90165	Mcdougall Drain	Offshore	21.8	16.4

Table 3. *Summary of fish species detected in dip nets and light traps in two agricultural drains and in Rondeau Bay during targeted larval Spotted Gar sampling in spring of 2018. Values are total number of sites at which the species was detected. A total of 31 species were detected overall (excluding genus-level identification).*

		Dip net				**Light trap**				
Scientific name	**Common Name**	**Dip net sites**	Bates-Bloomfield	Mcdougall Drain	Rondeau Bay	**Light trap sites**	Bates-Bloomfield	Mcdougall Drain	Rondeau Bay	**Total sites**
Ameiurus natalis	Yellow Bullhead	**0**	0	0	0	**1**	0	1	0	**1**
Carpiodes cyprinus	Quillback	**7**	3	2	2	**9**	4	2	3	**16**
Cyprinus carpio	Common Carp	**3**	2	0	1	**82**	32	28	22	**85**
Dorosoma cepedianum	Gizzard Shad	**6**	6	0	0	**52**	24	18	10	**58**
Esox lucius	Northern Pike	**0**	0	0	0	**1**	1	0	0	**1**
Etheostoma blennioides	Greenside Darter	**1**	1	0	0	**0**	0	0	0	**1**
Etheostoma exile	Iowa Darter	**0**	0	0	0	**11**	0	0	11	**11**
Etheostoma nigrum	Johnny Darter	**0**	0	0	0	**20**	1	0	19	**20**
Fundulus diaphanus	Banded Killifish	**0**	0	0	0	**4**	0	0	4	**4**
Ictiobus bubalus	Smallmouth Buffalo	**33**	16	11	6	**46**	24	11	11	**79**
Ictiobus cyprinellus	Bigmouth Buffalo	**7**	6	1	0	**4**	2	1	1	**11**
Ictiobus niger	Black Buffalo	**5**	2	3	0	**5**	2	2	1	**10**
Labidesthes sicculus	Brook Silverside	**0**	0	0	0	**4**	0	2	2	**4**
Larval fishes *	Larval fishes *	**6**	1	3	2	**5**	2	2	1	**11**
Lepisosteus sp. *	Larval gar *	**3**	0	2	1	**0**	0	0	0	**3**
Lepisosteus oculatus	Spotted Gar	**28**	8	13	7	**0**	0	0	0	**28**
Lepisosteus osseus	Longnose Gar	**17**	3	5	9	**0**	0	0	0	**17**
Lepomis gibbosus	Pumpkinseed	**7**	4	1	2	**80**	28	33	19	**87**
Lepomis macrochirus	Bluegill	**7**	6	0	1	**74**	27	25	22	**81**
Lepomis sp.	Sunfish sp.	**0**	0	0	0	**10**	4	5	1	**10**
Micropterus salmoides	Largemouth Bass	**1**	0	1	0	**9**	2	0	7	**10**
Morone americana	White Perch	**0**	0	0	0	**1**	1	0	0	**1**
Neogobius melanostomus	Round Goby	**0**	0	0	0	**14**	0	1	13	**14**
Notemigonus crysoleucas	Golden Shiner	**47**	14	16	17	**79**	20	25	34	**126**
Notropis atherinoides	Emerald Shiner	**0**	0	0	0	**1**	0	0	1	**1**
Notropis buchanani	Ghost Shiner	**3**	0	0	3	**24**	2	3	19	**27**
Notropis heterodon	Blackchin Shiner	**0**	0	0	0	**5**	0	0	5	**5**
Notropis hudsonius	Spottail Shiner	**23**	4	7	12	**34**	0	6	28	**57**
Notropis sp.	Shiner sp. (*Notropis* genus)	**1**	0	0	1	**3**	0	0	3	**4**
Notropis volucellus	Mimic Shiner	**1**	0	0	1	**1**	0	0	1	**2**
Perca flavescens	Yellow Perch	**0**	0	0	0	**5**	0	0	5	**5**
Pimephales notatus	Bluntnose Minnow	**1**	0	0	1	**37**	3	2	32	**38**
Pomoxis annularis	White Crappie	**0**	0	0	0	**1**	0	1	0	**1**
Pomoxis nigromaculatus	Black Crappie	**2**	2	0	0	**33**	12	15	6	**35**
Umbra limi	Central Mudminnow	**0**	0	0	0	**6**	0	5	1	**6**
	Total species	**18**	**14**	**10**	**12**	**28**	**16**	**18**	**24**	**31**

* field classification – no genetic identification data (damaged samples)

Table 4. *Summary of preserved total length (TL) and mass of a) Spotted Gar, b) Longnose Gar, and c) larval gar not identified to species captured in dip net sampling in Rondeau Bay and tributaries during spring 2018.*

*a) Spotted Gar (*Lepisosteus oculatus*)*

	TL (mm)	Mass (g)
Min	13.96	0.007
Mean	39.89	0.144
Max	83.11	0.653
Total captured	37	

*b) Longnose Gar (*Lepisosteus osseus*)*

	TL (mm)	Mass (g)
Min	25.44	0.027
Mean	52.61	0.202
Max	75.11	0.474
Total captured	24	

*c) Larval gar, not identified to species (*Lepisosteus *sp.)*

	TL (mm)	Mass (g)
Min	22.87	0.024
Mean	38.06	0.075
Max	58.29	0.123
Total captured	3	

Table 5. *Preserved total length (TL) and mass of individual gar captured during dip net sampling in Rondeau Bay, Bates-Bloomfield Drain, and Mcdougall Drain during spring 2018. All captured gar were individually genetically identified. Individuals listed as* Lepisosteus *sp. were not genetically identified, likely due to preservation error.*

Species	Site code	Waterbody name	TL (mm)	Mass (g)	SampleID
Lepisosteus oculatus	DN-B-45	Rondeau Bay	13.96	0.009	30372
Lepisosteus oculatus	DN-B-63	Rondeau Bay	42.96	0.178	30308
Lepisosteus oculatus	DN-B-63	Rondeau Bay	43.47	0.182	40665
Lepisosteus oculatus	DN-B-66	Rondeau Bay	16.60	0.013	20649
Lepisosteus oculatus	DN-B-72	Rondeau Bay	46.42	0.194	63438
Lepisosteus oculatus	DN-B-73	Rondeau Bay	46.90	0.158	63441
Lepisosteus oculatus	DN-B-73	Rondeau Bay	45.14	0.166	63440
Lepisosteus oculatus	DN-B-73	Rondeau Bay	44.53	0.185	63439
Lepisosteus oculatus	DN-B-74	Rondeau Bay	44.27	0.190	43486
Lepisosteus oculatus	DN-B-90	Rondeau Bay	16.56	0.011	43445
Lepisosteus oculatus	DN-D-015	Bates-Bloomfield Drain	14.49	0.007	63100
Lepisosteus oculatus	DN-D-025	Bates-Bloomfield Drain	30.07	0.065	30238
Lepisosteus oculatus	DN-D-027	Bates-Bloomfield Drain	34.82	0.069	30255
Lepisosteus oculatus	DN-D-032	Bates-Bloomfield Drain	40.67	0.105	30310
Lepisosteus oculatus	DN-D-032	Bates-Bloomfield Drain	38.35	0.082	30128

Species	Site code	Waterbody name	TL (mm)	Mass (g)	SampleID
Lepisosteus oculatus	DN-D-033	Bates-Bloomfield Drain	27.64	0.055	30350
Lepisosteus oculatus	DN-D-037	Bates-Bloomfield Drain	46.36	0.186	30221
Lepisosteus oculatus	DN-D-038	Bates-Bloomfield Drain	56.73	0.294	63434
Lepisosteus oculatus	DN-D-038	Bates-Bloomfield Drain	53.10	0.234	63433
Lepisosteus oculatus	DN-D-038	Bates-Bloomfield Drain	54.57	0.207	43470
Lepisosteus oculatus	DN-D-042	Bates-Bloomfield Drain	70.71	0.474	43484
Lepisosteus oculatus	DN-D-071	Mcdougall Drain	32.20	0.067	20695
Lepisosteus oculatus	DN-D-082	Mcdougall Drain	45.31	0.135	43516
Lepisosteus oculatus	DN-D-084	Mcdougall Drain	17.60	0.017	20661
Lepisosteus oculatus	DN-D-086	Mcdougall Drain	43.85	0.051	63428
Lepisosteus oculatus	DN-D-087	Mcdougall Drain	15.35	0.013	20653
Lepisosteus oculatus	DN-D-088	Mcdougall Drain	22.73	0.027	20685
Lepisosteus oculatus	DN-D-089	Mcdougall Drain	59.97	0.295	43527
Lepisosteus oculatus	DN-D-090	Mcdougall Drain	38.41	0.117	20650
Lepisosteus oculatus	DN-D-091	Mcdougall Drain	36.79	0.074	63429
Lepisosteus oculatus	DN-D-092	Mcdougall Drain	43.02	0.130	20651
Lepisosteus oculatus	DN-D-092	Mcdougall Drain	39.17	0.082	20652
Lepisosteus oculatus	DN-D-093	Mcdougall Drain	24.25	0.030	30152
Lepisosteus oculatus	DN-D-096	Mcdougall Drain	83.11	0.653	63339
Lepisosteus oculatus	DN-D-096	Mcdougall Drain	20.82	0.018	30218
Lepisosteus oculatus	DN-D-097	Mcdougall Drain	55.06	0.189	63430
Lepisosteus oculatus	DN-D-097	Mcdougall Drain	70.10	0.365	43523
Lepisosteus osseus	DN-B-45	Rondeau Bay	36.21	0.087	30371
Lepisosteus osseus	DN-B-50	Rondeau Bay	25.44	0.027	20693
Lepisosteus osseus	DN-B-60	Rondeau Bay	37.97	0.067	20673
Lepisosteus osseus	DN-B-65	Rondeau Bay	51.07	0.157	30253
Lepisosteus osseus	DN-B-71	Rondeau Bay	75.11	0.474	63432
Lepisosteus osseus	DN-B-71	Rondeau Bay	61.88	0.224	43466
Lepisosteus osseus	DN-B-72	Rondeau Bay	33.06	0.062	63331
Lepisosteus osseus	DN-B-72	Rondeau Bay	59.17	0.273	63437
Lepisosteus osseus	DN-B-72	Rondeau Bay	58.73	0.219	63435
Lepisosteus osseus	DN-B-72	Rondeau Bay	61.29	0.243	63436
Lepisosteus osseus	DN-B-73	Rondeau Bay	57.62	0.271	63384
Lepisosteus osseus	DN-B-74	Rondeau Bay	51.63	0.168	63444
Lepisosteus osseus	DN-B-74	Rondeau Bay	45.53	0.177	63443
Lepisosteus osseus	DN-B-74	Rondeau Bay	53.62	0.164	63442
Lepisosteus osseus	DN-B-84	Rondeau Bay	73.63	0.392	43499
Lepisosteus osseus	DN-D-026	Bates-Bloomfield Drain	46.48	0.140	30389
Lepisosteus osseus	DN-D-029	Bates-Bloomfield Drain	48.17	0.159	30388
Lepisosteus osseus	DN-D-034	Bates-Bloomfield Drain	54.73	0.216	30789
Lepisosteus osseus	DN-D-068	Mcdougall Drain	31.82	0.046	20696
Lepisosteus osseus	DN-D-076	Mcdougall Drain	35.01	0.046	20694
Lepisosteus osseus	DN-D-095	Mcdougall Drain	74.62	0.409	63431
Lepisosteus osseus	DN-D-095	Mcdougall Drain	69.68	0.347	42353
Lepisosteus osseus	DN-D-098	Mcdougall Drain	53.43	0.208	63328
Lepisosteus osseus	DN-D-101	Mcdougall Drain	66.72	0.262	43451
Lepisosteus sp.	DN-B-12	Rondeau Bay	22.87	0.024	63242
Lepisosteus sp.	DN-D-086	Mcdougall Drain	58.29	0.123	42664
Lepisosteus sp.	DN-D-091	Mcdougall Drain	33.02	0.078	42327

Table 6. *Summary of light trap sampling effort. Light trap deployment time, retrieval time, and sunset time were recorded in the field from the handheld GPS unit. Soak time is the total time the trap was in the water from deployment to retrieval. Glow time is the estimated time the chemical light stick was glowing after sunset and attracting fishes to the trap. Glow time is calculated as the difference between set time and sunset time subtracted from the light stick glow duration (12h). An asterisk (*) denotes unsuccessful samples where the bottom tray became detached and no fishes were captured.*

Site code	Deploy time (hh:mm 24h)	Retrieval time (hh:mm 24h)	Sunset (hh:mm 24h)	Soak time (hrs)	Glow time (hrs)
LT-B-01	14:29	8:20	20:51	*	*
LT-B-02	14:00	8:14	20:51	18.23	5.15
LT-B-03	14:07	8:26	20:51	18.32	5.27
LT-B-04	14:50	8:32	20:51	17.70	5.98
LT-B-05	14:19	8:28	20:51	18.15	5.47
LT-B-06	13:52	8:21	20:51	18.48	5.02
LT-B-07	14:39	8:19	20:51	17.67	5.80
LT-B-08	14:47	8:15	20:51	17.47	5.93
LT-B-09	15:40	9:56	20:55	18.27	6.75
LT-B-10	15:47	10:01	20:55	18.23	6.87
LT-B-11	15:32	9:46	20:55	18.23	6.62
LT-B-12	15:22	9:39	20:55	18.28	6.45
LT-B-13	15:45	9:10	20:55	17.42	6.83
LT-B-14	15:34	9:00	20:55	17.43	6.65
LT-B-15	16:00	8:50	20:55	16.83	7.08
LT-B-16	16:07	8:35	20:55	16.47	7.20
LT-B-17	15:57	9:01	20:56	17.07	7.02
LT-B-18	16:07	9:09	20:56	17.03	7.18
LT-B-19	16:23	9:22	20:56	16.98	7.45
LT-B-20	16:16	9:17	20:56	17.02	7.33
LT-B-21	15:40	8:59	20:56	17.32	6.73
LT-B-22	15:33	8:48	20:56	17.25	6.62
LT-B-23	15:16	8:38	20:56	17.37	6.33
LT-B-24	15:25	8:29	20:56	17.07	6.48
LT-B-25	15:17	9:09	20:56	17.87	6.35
LT-B-26	15:29	9:14	20:56	17.75	6.55
LT-B-27	15:08	9:02	20:56	17.90	6.20
LT-B-28	15:39	9:20	20:56	17.68	6.72
LT-B-29	14:20	8:53	20:56	18.55	7.50
LT-B-30	15:40	8:47	20:56	17.12	6.73
LT-B-31	15:21	8:41	20:56	17.33	6.42
LT-B-32	15:31	8:32	20:56	17.02	6.58
LT-B-33	15:51	11:08	21:03	19.28	6.77
LT-B-34	16:07	11:14	21:03	19.12	7.03
LT-B-35	16:18	11:19	21:03	19.02	7.22
LT-B-36	16:29	11:27	21:03	18.97	7.40
LT-B-37	15:53	10:22	21:03	18.48	6.83
LT-B-38	16:00	10:16	21:03	18.27	6.95
LT-B-39	15:44	10:04	21:03	18.33	6.68
LT-B-40	16:08	9:56	21:03	*	*
LT-B-41	16:29	9:32	21:06	17.05	7.38
LT-B-42	16:35	9:48	21:06	17.22	7.48
LT-B-43	16:33	9:39	21:06	17.10	7.45
LT-B-44	16:38	9:55	21:06	17.28	7.53
LT-B-45	15:22	8:50	21:06	17.47	6.28
LT-B-46	16:07	8:45	21:06	16.63	7.03
LT-B-47	16:17	8:40	21:06	16.38	7.20
LT-B-48	14:59	8:43	21:07	17.73	5.87
LT-B-49	15:08	8:49	21:07	17.68	6.02
LT-B-50	15:17	8:54	21:07	17.62	6.17

Site code	Deploy time (hh:mm 24h)	Retrieval time (hh:mm 24h)	Sunset (hh:mm 24h)	Soak time (hrs)	Glow time (hrs)
LT-B-51	15:23	8:54	21:07	17.52	6.27
LT-B-52	14:25	8:30	21:07	18.08	5.32
LT-B-53	14:35	8:37	21:07	18.03	5.48
LT-B-54	14:00	8:02	21:07	18.03	4.90
LT-B-55	14:10	8:11	21:07	18.02	5.07
LT-B-56	14:12	8:20	21:07	18.13	5.10
LT-B-57	13:44	8:47	21:08	19.05	4.60
LT-B-58	13:53	9:03	21:08	19.17	4.75
LT-B-59	13:49	9:14	21:08	19.42	4.68
LT-B-60	13:59	9:25	21:08	19.43	4.85
LT-B-61	14:21	8:35	21:08	18.23	5.23
LT-B-62	14:02	8:45	21:08	18.72	4.92
LT-B-63	14:26	8:20	21:08	17.90	5.32
LT-B-64	14:29	8:15	21:08	*	*
LT-B-65	14:15	8:20	21:08	18.08	5.12
LT-B-66	14:28	8:16	21:08	17.80	5.33
LT-B-67	14:34	8:23	21:08	17.82	5.43
LT-B-68	14:42	8:28	21:08	17.77	5.57
LT-B-69	14:25	8:35	21:08	18.17	5.30
LT-B-70	14:32	8:30	21:08	17.97	5.42
LT-B-71	14:15	8:25	21:08	18.17	5.13
LT-B-72	14:40	8:15	21:08	17.58	5.55
LT-B-73	15:08	9:22	21:09	18.23	5.98
LT-B-74	15:16	9:29	21:09	18.22	6.12
LT-B-75	15:22	9:34	21:09	18.20	6.22
LT-B-76	15:27	9:38	21:09	18.18	6.30
LT-B-77	15:07	9:00	21:09	17.88	5.98
LT-B-78	15:00	9:05	21:09	18.08	5.87
LT-B-79	15:23	8:50	21:09	17.45	6.25
LT-B-80	15:15	8:58	21:09	17.72	6.12
LT-D-01	14:26	8:40	20:51	18.23	5.52
LT-D-02	14:35	8:49	20:51	18.23	5.73
LT-D-03	13:57	8:42	20:51	18.75	5.10
LT-D-04	14:08	8:34	20:51	18.43	5.28
LT-D-05	14:30	8:50	20:55	18.33	5.58
LT-D-06	14:42	9:01	20:55	18.32	5.78
LT-D-07	14:56	9:17	20:55	18.35	6.02
LT-D-08	15:09	9:28	20:55	18.32	6.23
LT-D-09	15:38	8:42	20:56	17.07	6.70
LT-D-10	15:30	8:38	20:56	*	*
LT-D-11	15:45	8:51	20:56	17.10	6.82
LT-D-12	14:57	8:27	20:56	17.50	6.02
LT-D-13	14:42	8:32	20:56	17.83	5.77
LT-D-14	14:50	8:51	20:56	18.02	5.90
LT-D-15	14:34	8:25	20:56	17.85	5.63
LT-D-16	15:00	8:55	20:56	17.92	6.07
LT-D-17	15:04	10:33	21:03	19.48	5.98
LT-D-18	15:15	10:41	21:03	19.43	6.17
LT-D-19	15:27	10:50	21:03	19.38	6.37
LT-D-20	15:37	10:59	21:03	19.37	6.53
LT-D-21	16:14	8:37	21:06	16.38	7.13
LT-D-22	16:17	8:46	21:06	16.48	7.18
LT-D-23	16:21	8:56	21:06	16.58	7.25
LT-D-24	16:25	9:08	21:06	16.72	7.32
LT-D-25	14:22	8:15	21:07	17.88	5.25
LT-D-26	14:31	8:23	21:07	17.87	5.40
LT-D-27	14:41	8:31	21:07	17.83	5.57
LT-D-28	14:46	8:37	21:07	17.85	5.65
LT-D-29	13:09	8:21	21:08	*	*
LT-D-30	13:13	8:24	21:08	19.18	4.08

Site code	Deploy time (hh:mm 24h)	Retrieval time (hh:mm 24h)	Sunset (hh:mm 24h)	Soak time (hrs)	Glow time (hrs)
LT-D-31	13:25	8:28	21:08	19.05	4.28
LT-D-32	13:33	8:35	21:08	19.03	4.42
LT-D-33	13:39	8:50	21:08	19.18	4.52
LT-D-34	13:52	8:45	21:08	18.88	4.73
LT-D-35	13:46	8:42	21:08	18.93	4.63
LT-D-36	14:03	8:33	21:08	18.50	4.92
LT-D-37	14:35	8:56	21:09	18.35	5.43
LT-D-38	14:42	9:03	21:09	18.35	5.55
LT-D-39	14:51	9:10	21:09	18.32	5.70
LT-D-40	14:59	9:15	21:09	18.27	5.83
LT-D-41	14:21	9:41	20:50	19.33	5.52
LT-D-42	14:12	9:56	20:50	19.73	5.37
LT-D-43	14:41	9:21	20:50	18.67	5.85
LT-D-44	14:32	9:31	20:50	18.98	5.70
LT-D-45	14:52	9:04	20:50	18.20	6.03
LT-D-46	15:12	8:59	20:50	17.78	6.37
LT-D-47	14:34	10:05	20:55	19.52	5.65
LT-D-48	14:52	9:57	20:55	19.08	5.95
LT-D-49	15:10	9:42	20:55	18.53	6.25
LT-D-50	15:20	9:20	20:55	18.00	6.42
LT-D-51	15:53	9:39	20:56	17.77	6.95
LT-D-52	16:10	9:20	20:56	17.17	7.23
LT-D-53	16:00	9:31	20:56	17.52	7.07
LT-D-54	16:15	9:11	20:56	16.93	7.32
LT-D-55	14:46	9:26	20:56	18.67	7.83
LT-D-56	14:55	9:17	20:56	18.36	7.98
LT-D-57	15:05	9:09	20:56	18.07	6.15
LT-D-58	15:13	9:03	20:56	17.83	6.28
LT-D-59	15:09	11:03	21:03	19.90	6.10
LT-D-60	15:17	10:57	21:03	19.67	6.23
LT-D-61	15:26	10:44	21:03	19.30	6.38
LT-D-62	15:36	10:31	21:03	18.92	6.55
LT-D-63	15:35	9:30	21:06	17.92	6.50
LT-D-64	15:50	9:12	21:06	17.37	6.75
LT-D-65	15:41	9:15	21:06	17.57	6.60
LT-D-66	15:58	9:00	21:06	17.03	6.88
LT-D-67	14:46	9:03	21:07	18.28	5.67
LT-D-68	14:57	8:55	21:07	17.97	5.85
LT-D-69	15:02	8:50	21:07	*	*
LT-D-70	15:09	8:42	21:07	17.55	6.05
LT-D-71	14:26	9:20	21:08	18.90	5.32
LT-D-72	14:27	9:10	21:08	18.72	5.33
LT-D-73	14:30	9:00	21:08	18.50	5.38
LT-D-74	14:31	8:50	21:08	18.32	5.40
LT-D-75	13:36	9:05	21:08	19.49	4.48
LT-D-76	13:41	8:55	21:08	19.23	4.57
LT-D-77	13:50	8:45	21:08	18.92	4.72
LT-D-78	14:00	8:40	21:08	18.67	4.88
LT-D-79	14:30	9:40	21:09	19.17	5.37
LT-D-80	14:37	9:30	21:09	18.88	5.48
LT-D-81	14:53	9:12	21:09	18.32	5.75
LT-D-82	14:47	9:20	21:09	18.55	5.65
Min	**13:09**	**8:02**	**20:50**	**16.38**	**4.08**
Mean	**15:01**	**9:07**	**21:01**	**18.11**	**6.04**
Max	**16:38**	**11:27**	**21:09**	**19.90**	**7.98**

Table 7. *Abiotic habitat data for a) dip net, and b) light trap sites.*

a) Dip net sites

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
DN-B-01	22.2	24.87	350.5	9.69	8.32	8.27	0.45	0.90
DN-B-02	22.3	25.30	342.0	10.12	8.72	9.87	0.37	0.87
DN-B-03	20.1	25.31	347.7	10.11	8.69	14.50	0.26	1.33
DN-B-04	21.5	24.91	432.1	5.76	7.77	7.50	0.51	0.78
DN-B-05	20.5	25.50	343.3	10.17	8.74	13.25	0.40	0.89
DN-B-06	21.0	25.71	352.6	10.83	8.82	12.52	0.37	1.31
DN-B-07	22.2	25.50	350.1	10.25	8.72	12.63	0.35	1.23
DN-B-08	20.8	25.65	355.6	10.31	8.73	12.32	0.35	1.37
DN-B-09	20.5	25.09	386.9	8.97	8.30	6.57	0.41	0.81
DN-B-10	23.0	20.04	278.1	9.19	8.74	31.75	0.19	0.93
DN-B-11	15.9	19.63	314.8	6.51	8.06	37.11	0.16	0.96
DN-B-12	16.6	20.10	297.9	8.08	8.23	25.40	0.25	1.19
DN-B-13	17.8	20.13	295.0	8.07	8.26	26.41	0.22	0.96
DN-B-14	20.1	20.46	296.6	10.39	8.75	4.10	0.76	1.64
DN-B-15	16.6	20.78	324.4	9.50	8.46	5.77	0.88	0.98
DN-B-16	16.7	20.66	288.9	10.82	8.79	3.09	1.17	1.49
DN-B-17	20.6	21.64	278.8	13.15	8.96	2.71	1.18	0.66
DN-B-18	20.5	19.47	298.6	11.16	8.77	17.50	0.26	0.78
DN-B-19	19.3	19.71	302.9	11.40	8.76	16.41	0.32	1.23
DN-B-20	18.1	19.16	298.4	9.78	8.62	20.83	0.26	0.88
DN-B-21	17.1	19.19	311.1	8.56	8.07	12.43	0.52	1.00
DN-B-22	26.6	19.96	282.9	10.91	8.90	4.20	1.20	0.89
DN-B-23	17.0	19.59	322.1	10.13	8.49	5.49	0.63	0.61
DN-B-24	25.3	20.66	281.4	12.49	8.93	3.91	0.98	1.28
DN-B-25	18.1	20.04	264.8	11.55	8.94	1.81	1.20	0.87
DN-B-26	17.8	18.88	283.6	8.44	8.22	85.37	0.13	0.57
DN-B-27	19.7	18.32	297.5	6.61	7.93	60.18	0.18	0.69
DN-B-28	19.4	18.41	300.4	7.67	8.07	58.90	0.15	1.13
DN-B-29	17.6	18.64	301.9	7.92	8.15	55.94	0.15	1.27
DN-B-30	22.2	19.46	316.7	8.39	8.30	8.47	0.73	0.91
DN-B-31	19.5	19.56	271.5	9.55	8.75	9.77	0.54	1.50
DN-B-32	20.2	19.96	308.0	11.63	8.68	23.67	0.71	0.62
DN-B-33	21.0	19.60	288.6	9.75	8.59	22.35	0.30	1.04
DN-B-34	18.8	19.91	270.1	10.15	8.90	11.70	0.32	1.63
DN-B-35	19.1	19.98	269.1	10.22	8.93	10.23	0.40	1.86
DN-B-36	18.5	20.20	297.8	9.70	8.54	12.47	0.38	0.72
DN-B-37	18.2	19.83	278.5	9.49	8.72	17.94	0.28	1.32
DN-B-38	27.2	22.64	284.8	10.25	8.90	7.00	0.65	1.11
DN-B-39	29.7	23.88	320.5	12.20	8.82	4.80	0.90	0.60
DN-B-40	23.8	23.11	307.5	11.31	8.87	8.22	0.67	1.30

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
DN-B-41	23.1	23.95	300.8	12.96	9.10	6.40	0.61	0.77
DN-B-42	25.8	22.51	292.2	8.48	8.73	11.63	0.38	0.99
DN-B-43	27.9	22.46	291.0	8.60	8.74	10.76	0.44	0.78
DN-B-44	27.5	23.52	294.1	9.55	8.87	14.27	0.40	1.19
DN-B-45	26.5	22.39	297.0	7.55	8.42	9.32	0.50	0.69
DN-B-46	30.2	22.17	323.1	5.60	8.06	21.11	0.30	0.70
DN-B-47	28.8	23.12	277.5	9.84	8.98	12.44	0.36	1.36
DN-B-48	28.2	23.26	306.7	9.25	8.44	7.66	0.55	0.71
DN-B-49	29.4	23.61	304.5	8.51	8.24	6.15	0.49	0.68
DN-B-50	29.0	22.51	288.1	11.91	9.08	3.94	0.85	1.51
DN-B-51	*	22.88	270.5	13.41	9.10	2.82	1.20	0.74
DN-B-52	28.9	23.00	284.3	11.28	8.93	3.20	0.90	1.38
DN-B-53	29.8	23.06	275.9	11.36	9.07	4.12	0.94	1.09
DN-B-54	19.1	22.04	275.4	9.63	9.02	11.53	0.46	0.84
DN-B-55	19.3	22.20	276.5	9.59	8.96	7.10	0.67	0.53
DN-B-56	20.7	22.46	289.0	9.74	8.79	4.17	0.90	0.72
DN-B-57	18.8	22.58	292.0	10.22	8.83	5.29	0.68	1.34
DN-B-58	30.2	25.98	295.0	10.09	8.78	3.95	0.77	1.61
DN-B-59	31.1	26.32	308.4	11.11	8.64	2.67	1.01	0.86
DN-B-60	29.4	27.09	271.2	9.99	8.91	3.43	1.02	0.83
DN-B-61	20.5	26.42	261.4	11.11	9.17	4.98	0.89	1.44
DN-B-62	23.4	26.02	293.4	8.08	8.72	14.19	0.36	1.38
DN-B-63	23.4	25.18	353.4	4.99	7.69	7.64	0.93	0.72
DN-B-64	25.4	25.81	314.2	6.84	8.18	12.77	0.41	0.98
DN-B-65	22.2	25.45	298.1	4.72	7.74	26.01	0.66	0.45
DN-B-66	27.3	25.22	266.6	9.26	8.99	3.53	0.84	1.46
DN-B-67	28.2	25.70	285.9	9.64	8.83	3.07	1.08	0.73
DN-B-68	24.0	25.53	277.3	10.62	9.05	3.00	*	1.37
DN-B-69	25.6	25.93	275.6	6.69	7.86	1.50	1.20	0.75
DN-B-70	19.3	24.73	300.8	7.27	8.35	8.41	0.59	0.89
DN-B-71	22.7	24.59	300.4	7.80	8.45	7.63	0.70	0.78
DN-B-72	19.3	24.57	302.1	7.26	8.30	7.13	0.66	0.61
DN-B-73	19.2	23.75	318.8	6.65	7.85	3.25	1.03	0.86
DN-B-74	20.1	24.06	328.6	6.39	7.89	7.11	0.93	0.68
DN-B-75	19.4	24.76	307.2	8.22	8.55	4.49	0.83	0.45
DN-B-76	21.2	24.98	299.0	9.69	8.84	5.50	0.87	1.17
DN-B-77	19.6	24.56	318.6	7.67	8.23	3.60	1.15	0.85
DN-B-78	18.8	24.05	251.9	8.81	9.05	1.94	1.11	1.64
DN-B-79	20.8	23.80	267.4	8.71	8.84	5.22	0.50	1.05
DN-B-80	20.7	24.06	306.7	8.49	8.46	5.44	0.83	1.30
DN-B-81	19.1	24.31	269.7	7.17	8.15	0.72	1.20	0.81
DN-B-82	19.2	22.56	265.8	9.75	8.75	3.62	1.09	0.76
DN-B-83	19.2	22.41	257.3	10.42	9.12	5.63	0.74	1.44

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
DN-B-84	19.9	21.58	304.1	6.10	7.92	4.92	1.01	0.81
DN-B-85	20.0	22.63	273.8	11.31	8.99	3.01	0.97	1.10
DN-B-86	19.3	23.07	288.4	10.65	8.70	3.77	1.17	0.61
DN-B-87	21.2	22.70	271.5	11.50	9.01	1.92	1.04	1.17
DN-B-88	19.1	21.10	267.8	9.55	8.81	10.85	0.40	1.44
DN-B-89	20.0	21.11	242.6	10.23	9.12	7.70	0.46	1.65
DN-B-90	19.2	20.07	277.4	6.00	7.93	10.93	0.48	0.73
DN-B-91	18.8	20.84	253.7	10.10	8.99	3.99	0.62	1.42
DN-B-92	19.7	20.54	261.4	4.58	7.66	3.85	1.00	0.82
DN-B-93	20.4	21.10	231.5	9.94	9.12	9.92	0.45	1.51
DN-D-001	23.8	22.26	753.0	5.79	7.72	18.59	0.45	0.60
DN-D-002	23.3	22.72	720.6	6.01	7.60	19.41	0.62	0.63
DN-D-003	23.8	24.37	644.4	7.85	7.72	14.54	0.35	0.73
DN-D-004	22.8	24.49	422.6	2.63	7.49	10.58	0.36	0.94
DN-D-005	17.4	19.36	657.1	7.37	7.94	38.59	0.20	0.63
DN-D-006	16.2	19.70	627.2	6.98	7.95	91.49	0.16	0.61
DN-D-007	19.2	19.95	612.3	7.47	7.99	55.86	0.11	0.77
DN-D-008	17.6	19.99	604.3	7.26	7.93	45.53	0.16	0.78
DN-D-009	19.9	18.05	647.0	6.32	7.89	44.37	0.15	0.71
DN-D-010	22.3	18.65	656.0	7.41	7.88	24.48	0.22	0.73
DN-D-011	17.4	17.74	588.5	5.60	7.84	64.72	0.11	1.11
DN-D-012	23.2	19.33	610.3	8.62	7.99	63.23	0.17	0.92
DN-D-013	20.1	17.95	589.7	6.30	7.91	70.19	0.14	0.70
DN-D-014	19.9	18.00	594.0	6.92	7.95	58.29	0.11	0.83
DN-D-015	17.3	17.76	629.0	7.36	8.01	33.20	0.20	0.88
DN-D-016	20.7	18.39	413.8	4.07	7.67	29.54	0.32	0.76
DN-D-017	19.8	23.58	660.4	12.80	8.09	29.03	0.23	0.70
DN-D-018	26.3	24.90	652.8	17.46	8.47	26.62	0.23	0.72
DN-D-019	25.1	24.31	637.0	15.13	8.35	36.17	0.17	0.67
DN-D-020	26.6	24.81	630.5	17.27	8.43	134.14	0.21	0.78
DN-D-021	29.7	24.38	585.3	13.69	8.43	41.61	0.21	0.83
DN-D-022	26.7	25.38	611.6	17.73	8.69	38.43	0.19	0.80
DN-D-023	24.9	23.74	342.0	7.77	8.31	15.76	0.36	0.89
DN-D-024	26.9	24.66	573.2	12.70	8.49	22.68	0.22	0.72
DN-D-025	21.1	21.69	602.3	10.10	7.89	23.99	0.21	0.85
DN-D-026	20.1	22.35	552.2	11.58	8.15	60.01	0.15	0.65
DN-D-027	21.0	22.53	508.7	5.13	7.77	39.72	0.16	0.79
DN-D-028	18.6	21.93	333.4	5.95	7.83	6.02	0.60	1.30
DN-D-029	29.7	26.74	598.5	13.81	8.01	27.27	0.28	0.70
DN-D-030	28.9	26.92	591.5	11.26	7.86	55.27	0.13	0.88
DN-D-031	28.3	26.16	591.2	9.13	8.05	39.97	0.21	0.96
DN-D-032	31.1	26.68	325.8	6.80	8.15	14.06	0.34	1.14
DN-D-033	23.9	26.68	606.7	10.25	8.08	36.50	0.20	0.64

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
DN-D-034	26.8	26.86	586.7	9.64	8.10	41.45	0.21	0.65
DN-D-035	26.8	27.00	579.7	13.63	8.53	32.48	0.27	0.94
DN-D-036	27.3	25.61	440.0	3.48	7.58	25.55	0.81	0.97
DN-D-037	17.9	24.22	572.3	5.30	7.76	15.02	0.16	0.74
DN-D-038	18.0	24.32	572.2	6.41	7.77	48.36	0.17	0.54
DN-D-039	18.2	23.98	552.4	4.80	7.79	38.91	0.15	0.71
DN-D-040	18.8	23.33	364.0	*	7.47	2.16	1.20	1.40
DN-D-041	20.1	21.46	590.9	9.64	8.09	42.59	0.15	0.65
DN-D-042	20.5	21.65	552.8	10.07	8.16	59.91	0.15	0.68
DN-D-043	21.2	21.45	570.7	10.07	8.07	31.02	0.22	0.82
DN-D-044	19.8	21.27	531.1	9.58	8.19	9.95	*	0.75
DN-D-045	20.8	21.67	520.0	8.92	8.20	58.97	0.15	0.73
DN-D-046	18.8	21.10	529.6	5.57	8.12	4.39	0.15	0.87
DN-D-047	19.3	22.37	520.2	10.84	8.39	60.15	0.19	0.69
DN-D-048	19.1	20.72	311.3	4.85	7.95	3.62	0.56	0.91
DN-D-049	19.7	21.30	516.9	7.71	8.17	67.37	0.14	0.96
DN-D-050	25.5	23.26	654.3	6.20	7.68	15.21	0.28	0.81
DN-D-051	24.9	24.41	651.0	8.60	7.81	20.09	0.30	0.62
DN-D-052	22.7	25.23	638.4	10.20	7.98	23.67	0.22	0.54
DN-D-053	27.1	25.67	649.9	10.44	8.06	19.26	0.26	1.12
DN-D-054	22.8	19.55	600.5	6.47	7.85	15.70	0.34	1.25
DN-D-055	17.2	19.13	591.3	6.52	7.87	12.74	0.29	1.31
DN-D-056	21.8	19.38	582.1	6.14	7.96	63.68	0.20	0.42
DN-D-057	17.8	19.26	447.3	7.40	8.08	23.87	0.24	0.60
DN-D-058	16.1	17.55	561.9	4.93	7.78	16.81	0.33	0.90
DN-D-059	14.8	18.42	578.4	5.38	7.80	22.84	0.23	0.48
DN-D-060	15.4	18.51	576.8	5.84	7.82	25.34	0.24	1.14
DN-D-061	16.5	18.52	543.2	6.23	7.83	48.69	0.21	0.61
DN-D-062	17.3	17.30	562.6	5.89	7.89	10.20	0.51	0.76
DN-D-063	19.6	18.10	573.1	5.35	7.86	20.77	0.33	0.46
DN-D-064	19.0	18.41	481.5	7.43	7.95	23.61	0.29	0.98
DN-D-065	20.9	18.35	497.6	7.26	7.98	27.42	0.25	1.05
DN-D-066	23.3	21.28	596.8	7.88	7.90	19.93	0.25	1.30
DN-D-067	25.1	21.55	606.2	7.23	7.50	16.51	0.19	1.46
DN-D-068	22.6	21.72	567.2	7.90	7.40	44.54	0.22	0.52
DN-D-069	21.2	21.15	410.5	7.26	7.99	22.16	0.29	0.55
DN-D-070	27.7	21.82	610.7	6.25	7.87	17.92	0.32	1.21
DN-D-071	29.6	23.30	614.0	11.77	8.16	17.45	0.38	0.91
DN-D-072	28.4	23.78	612.0	12.45	8.09	16.27	*	1.35
DN-D-073	24.8	24.00	495.9	5.66	7.81	25.83	0.20	0.47
DN-D-074	25.3	20.52	596.9	4.63	7.94	24.29	0.30	1.33
DN-D-075	30.2	21.87	596.4	7.62	7.89	48.63	0.26	0.40
DN-D-076	27.2	22.04	545.3	6.82	8.03	40.43	0.32	0.69

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
DN-D-077	25.5	22.00	497.7	8.18	8.09	28.96	0.27	0.94
DN-D-078	30.0	24.60	622.4	7.71	7.90	19.96	0.27	1.31
DN-D-079	29.8	26.03	607.0	9.26	7.88	11.02	0.35	0.53
DN-D-080	31.2	24.77	524.0	1.36	7.46	5.56	0.25	0.45
DN-D-081	31.6	25.19	501.5	5.61	7.68	27.09	0.29	0.84
DN-D-082	24.1	23.40	617.7	2.68	7.63	11.09	0.38	0.78
DN-D-083	29.6	23.74	619.4	2.76	7.63	32.43	0.28	1.32
DN-D-084	27.0	24.78	591.0	4.94	7.67	50.71	0.17	0.47
DN-D-085	25.8	25.66	531.7	6.14	7.76	76.76	0.26	0.40
DN-D-086	22.6	22.47	603.9	2.49	7.65	7.45	0.48	0.87
DN-D-087	23.9	23.05	603.2	4.72	7.66	43.72	0.32	0.52
DN-D-088	22.2	23.31	593.0	3.69	7.61	22.74	0.22	0.94
DN-D-089	22.8	24.03	558.1	7.95	7.83	31.16	0.55	0.58
DN-D-090	22.6	23.41	587.6	3.92	7.64	29.89	0.21	0.87
DN-D-091	20.0	23.67	429.0	3.40	7.56	51.68	0.40	0.66
DN-D-092	21.7	23.69	394.3	4.96	7.70	9.80	0.42	0.99
DN-D-093	25.9	20.46	593.1	4.19	7.70	17.23	0.43	1.26
DN-D-094	26.3	21.15	596.2	5.20	7.66	12.32	0.36	1.05
DN-D-095	24.5	22.08	599.7	6.83	7.72	19.44	0.48	1.05
DN-D-096	24.3	22.46	597.6	4.86	7.58	11.76	0.50	0.61
DN-D-097	27.7	22.74	591.9	5.72	7.64	25.93	0.34	0.99
DN-D-098	28.5	22.19	564.9	7.85	7.70	19.03	0.26	0.79
DN-D-099	21.8	21.09	328.7	6.25	7.85	21.45	0.31	0.83
DN-D-100	22.9	20.36	383.2	3.28	7.54	11.34	0.54	0.60
DN-D-101	22.2	21.13	534.6	5.66	7.67	29.95	0.14	0.94
Min	**14.8**	**17.30**	**231.5**	**1.36**	**7.40**	**0.72**	**0.11**	**0.40**
Mean	**22.5**	**22.41**	**434.0**	**8.37**	**8.24**	**21.94**	**0.46**	**0.92**
Max	**31.6**	**27.09**	**753.0**	**17.73**	**9.17**	**134.14**	**1.20**	**1.86**

b) Light trap sites

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
LT-B-01	23.6	25.72	349.0	10.84	8.78	13.48	0.32	1.04
LT-B-02	21.1	25.63	351.1	10.53	8.76	13.10	0.49	1.43
LT-B-03	20.9	25.80	350.8	10.89	8.80	12.34	0.37	0.97
LT-B-04	22.4	26.31	367.0	10.64	8.73	9.80	0.44	0.93
LT-B-05	27.0	25.97	360.4	10.30	8.60	9.26	0.37	0.99
LT-B-06	21.7	25.67	353.9	10.42	8.74	12.68	0.45	1.07
LT-B-07	22.2	25.89	354.1	11.27	8.86	13.06	0.36	1.39
LT-B-08	22.8	25.99	359.0	11.71	8.86	10.42	0.37	1.24
LT-B-09	25.6	23.00	310.3	10.07	8.62	30.45	0.32	0.90
LT-B-10	24.4	21.77	299.4	10.46	8.83	20.97	0.33	1.20

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
LT-B-11	24.1	22.14	319.2	11.06	8.62	19.98	0.29	0.57
LT-B-12	21.2	21.73	322.7	9.81	8.44	37.95	0.17	0.73
LT-B-13	21.7	21.58	323.3	10.06	8.53	4.30	0.88	1.62
LT-B-14	20.6	21.69	331.9	9.50	8.40	5.14	0.51	1.07
LT-B-15	21.5	22.27	281.2	11.58	8.93	2.28	0.86	1.39
LT-B-16	22.3	22.26	295.8	11.68	8.83	3.63	0.68	0.96
LT-B-17	24.3	20.73	294.0	11.17	8.83	26.54	0.23	0.76
LT-B-18	21.5	20.52	393.1	4.40	7.83	21.55	0.23	0.64
LT-B-19	18.8	20.79	302.9	8.96	8.39	21.50	0.27	1.19
LT-B-20	18.5	20.96	306.8	8.90	8.31	18.51	0.32	0.97
LT-B-21	16.5	20.82	302.5	10.11	8.68	4.23	0.90	1.50
LT-B-22	16.1	20.84	334.8	9.95	8.54	8.93	0.57	0.92
LT-B-23	19.7	21.60	274.4	13.15	9.03	3.45	1.05	0.81
LT-B-24	19.3	21.14	276.4	11.62	8.91	3.15	1.11	1.52
LT-B-25	17.9	20.84	310.1	11.27	8.74	29.03	0.23	0.57
LT-B-26	17.4	20.23	302.6	11.33	8.75	15.03	0.34	1.40
LT-B-27	17.3	20.73	308.4	11.55	8.73	52.11	0.30	0.55
LT-B-28	16.9	20.48	322.5	10.63	8.36	9.73	0.49	1.07
LT-B-29	22.1	20.21	282.4	11.47	8.90	3.42	1.20	1.26
LT-B-30	15.2	20.29	285.4	11.15	8.88	5.20	0.70	1.47
LT-B-31	15.2	21.27	314.4	12.39	8.76	4.62	0.44	0.95
LT-B-32	15.4	20.94	264.6	13.19	9.05	3.46	0.91	1.16
LT-B-33	19.5	22.30	325.0	10.04	8.56	7.01	0.59	0.94
LT-B-34	19.7	22.19	310.4	10.82	8.83	9.45	0.42	1.23
LT-B-35	18.9	22.89	324.0	10.87	8.75	6.28	0.70	1.07
LT-B-36	18.7	23.16	320.7	10.89	8.78	5.31	0.76	0.94
LT-B-37	24.2	21.57	284.7	10.91	8.90	9.87	0.48	1.64
LT-B-38	22.4	21.10	266.1	11.40	9.02	3.17	1.03	1.73
LT-B-39	21.4	22.07	297.3	10.37	8.79	13.47	0.37	1.27
LT-B-40	22.1	22.44	293.1	12.58	9.04	12.42	0.42	1.20
LT-B-41	23.2	21.99	283.5	8.19	8.69	10.42	0.50	0.64
LT-B-42	23.4	21.82	317.1	6.69	8.17	11.24	0.51	0.95
LT-B-43	25.5	22.02	289.8	8.47	8.75	12.61	0.41	1.34
LT-B-44	25.9	21.93	299.8	7.86	8.33	10.21	0.58	1.02
LT-B-45	27.2	22.64	284.8	10.25	8.90	7.00	0.65	1.32
LT-B-46	30.7	24.06	316.4	13.18	8.94	3.92	0.64	0.60
LT-B-47	31.4	24.15	326.9	10.98	8.65	3.60	0.85	0.72
LT-B-48	30.1	23.60	296.6	8.74	8.66	9.29	0.59	0.57
LT-B-49	30.3	23.99	292.8	9.71	8.89	12.82	0.39	0.61
LT-B-50	27.8	24.23	301.7	9.01	8.48	5.22	0.81	1.11
LT-B-51	29.6	24.06	309.6	9.66	7.56	8.56	0.36	1.32
LT-B-52	31.3	22.24	272.8	12.21	9.10	2.99	1.10	1.57
LT-B-53	31.0	23.36	317.3	11.58	8.83	6.10	0.92	0.91

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
LT-B-54	31.9	23.46	278.3	11.31	9.07	4.31	0.87	1.13
LT-B-55	33.7	22.68	265.6	13.39	9.17	3.65	0.92	1.18
LT-B-56	27.4	22.89	270.5	12.58	9.12	3.56	0.95	1.49
LT-B-57	20.7	25.69	294.5	7.33	8.74	15.02	0.35	0.62
LT-B-58	20.8	25.71	291.7	7.86	8.84	13.10	0.43	1.32
LT-B-59	20.5	24.86	364.7	4.80	7.68	21.55	0.70	0.71
LT-B-60	21.1	25.46	298.0	6.34	8.02	6.68	0.70	0.97
LT-B-61	21.1	24.98	241.6	9.41	9.31	2.28	1.18	1.70
LT-B-62	30.9	26.14	314.6	10.76	8.69	4.59	0.78	0.93
LT-B-63	22.6	25.27	278.6	9.55	8.85	2.99	1.20	1.37
LT-B-64	20.9	25.42	266.9	8.21	8.93	2.43	0.95	1.20
LT-B-65	21.9	26.29	312.0	8.21	8.49	9.70	0.50	0.55
LT-B-66	24.2	26.46	305.2	8.82	8.70	7.93	0.64	0.90
LT-B-67	23.0	26.57	308.1	9.62	8.86	7.14	0.57	1.21
LT-B-68	21.1	26.90	315.0	8.93	8.65	7.93	0.62	0.44
LT-B-69	24.0	25.39	266.8	10.47	9.13	3.99	0.88	1.39
LT-B-70	24.4	25.22	235.2	11.48	9.50	1.50	1.08	1.81
LT-B-71	23.9	25.89	293.6	9.64	8.58	4.78	0.91	0.81
LT-B-72	21.8	25.81	263.8	10.27	9.16	3.96	0.97	1.17
LT-B-73	23.8	24.54	297.8	8.68	8.56	27.88	0.50	0.53
LT-B-74	20.9	24.56	328.7	7.36	8.11	3.40	1.03	0.82
LT-B-75	22.0	25.14	307.8	9.44	8.63	13.66	0.63	0.47
LT-B-76	23.0	25.13	297.7	9.88	8.84	4.09	0.96	1.36
LT-B-77	21.7	23.88	250.5	10.39	9.24	3.05	0.77	1.58
LT-B-78	21.1	23.66	322.7	7.91	8.17	7.84	0.51	0.95
LT-B-79	25.2	24.22	251.1	9.36	9.05	3.45	1.07	0.98
LT-B-80	20.1	24.27	241.3	10.61	9.32	3.25	1.04	1.52
LT-D-01	25.1	25.96	725.0	11.01	8.12	35.69	0.37	0.72
LT-D-02	26.7	24.44	739.0	8.13	7.95	12.18	0.40	0.59
LT-D-03	23.1	24.75	730.5	8.60	7.85	41.38	0.27	0.57
LT-D-04	25.2	25.96	666.1	11.16	8.08	45.36	0.18	0.90
LT-D-05	20.7	20.17	674.3	7.01	8.00	33.96	0.16	0.60
LT-D-06	22.4	21.39	647.5	6.90	8.00	120.10	0.06	0.67
LT-D-07	23.9	20.54	411.7	5.71	7.93	10.29	0.66	0.55
LT-D-08	21.8	20.82	630.5	7.45	8.03	71.98	0.16	0.63
LT-D-09	19.2	20.42	666.4	8.49	8.03	26.08	0.18	0.74
LT-D-10	17.8	19.91	621.5	7.62	8.03	63.24	0.14	0.75
LT-D-11	19.1	19.88	611.8	6.98	7.95	101.18	0.12	0.85
LT-D-12	17.6	20.00	615.2	7.78	8.04	86.60	0.11	0.78
LT-D-13	19.9	19.62	647.5	8.76	8.04	34.97	0.19	0.74
LT-D-14	23.1	19.47	665.1	7.76	7.93	76.12	0.20	0.69
LT-D-15	20.1	19.33	613.4	7.96	7.96	51.26	0.13	0.63
LT-D-16	22.7	19.86	371.3	6.41	7.88	12.07	0.43	0.85

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
LT-D-17	22.2	23.66	684.3	11.49	8.02	19.30	0.28	0.64
LT-D-18	21.2	24.60	676.4	16.19	8.45	27.85	0.25	0.76
LT-D-19	23.5	25.75	631.8	18.76	8.63	35.88	0.25	0.65
LT-D-20	19.9	21.56	584.1	11.76	8.19	26.57	0.40	0.64
LT-D-21	21.1	21.45	597.2	9.21	7.93	55.72	0.11	0.56
LT-D-22	21.4	21.42	565.8	8.00	7.99	51.59	0.15	0.66
LT-D-23	22.3	21.38	563.1	8.29	8.05	26.17	0.18	0.74
LT-D-24	22.9	21.17	380.9	2.80	7.58	12.19	0.67	1.04
LT-D-25	28.2	23.85	633.6	15.67	8.50	29.98	0.21	0.74
LT-D-26	28.3	24.22	582.2	14.32	8.59	32.91	0.15	0.80
LT-D-27	30.5	23.51	409.1	6.29	7.74	52.16	0.23	0.82
LT-D-28	29.0	23.13	471.1	7.86	7.74	12.00	0.46	1.08
LT-D-29	32.2	27.90	604.0	14.75	8.81	78.87	0.17	0.70
LT-D-30	29.1	27.62	599.9	11.60	8.07	61.88	0.14	0.94
LT-D-31	30.3	27.76	605.6	11.76	8.29	35.35	0.15	0.84
LT-D-32	30.8	26.31	592.0	9.05	7.94	43.48	0.21	0.65
LT-D-33	27.1	26.65	582.5	12.89	8.48	42.29	0.16	0.93
LT-D-34	24.7	26.82	481.1	11.08	8.30	46.03	0.16	0.72
LT-D-35	24.7	26.82	580.4	12.58	8.49	37.24	0.18	0.94
LT-D-36	24.8	26.11	365.1	7.68	7.94	9.57	0.75	0.93
LT-D-37	22.6	23.41	589.5	7.97	7.85	35.82	0.28	0.68
LT-D-38	22.0	24.46	567.1	10.09	8.05	48.64	0.15	0.73
LT-D-39	21.7	22.49	511.9	2.46	7.54	6.14	1.10	0.67
LT-D-40	21.9	23.87	548.1	8.22	7.97	36.95	0.19	1.00
LT-D-41	26.9	26.00	684.2	10.88	7.94	17.58	0.32	0.89
LT-D-42	25.3	24.22	661.9	9.22	7.83	23.72	0.24	0.71
LT-D-43	28.4	26.82	673.6	12.94	8.07	38.71	0.31	0.37
LT-D-44	25.5	25.86	668.2	11.34	7.94	29.08	0.29	0.85
LT-D-45	25.8	26.66	588.4	11.01	8.04	21.35	0.26	0.67
LT-D-46	25.5	26.73	492.5	9.75	8.15	37.20	0.17	0.94
LT-D-47	22.6	19.56	592.1	6.65	7.87	10.25	0.42	0.59
LT-D-48	21.6	19.90	602.4	6.86	7.81	12.24	0.34	1.32
LT-D-49	21.3	21.17	612.3	7.28	7.81	77.17	0.17	0.39
LT-D-50	20.9	21.62	579.2	7.34	7.94	187.67	0.13	0.49
LT-D-51	18.1	20.05	604.6	7.27	7.91	39.48	0.26	0.95
LT-D-52	17.0	20.33	598.7	7.30	7.83	25.23	0.18	0.66
LT-D-53	17.0	19.96	603.1	7.24	7.84	19.96	0.27	1.12
LT-D-54	16.4	20.59	578.7	7.78	7.90	34.64	0.17	0.55
LT-D-55	23.3	18.75	584.4	6.13	7.81	20.67	0.27	0.64
LT-D-56	19.5	19.92	592.8	8.19	7.82	22.15	0.24	0.56
LT-D-57	18.4	20.26	538.8	7.31	7.79	45.27	0.25	0.37
LT-D-58	17.8	20.86	319.7	11.11	8.58	4.67	0.45	1.21
LT-D-59	24.0	21.08	604.3	6.02	7.92	16.08	0.29	0.85

Site code	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Turbidity tube (m)	Mean depth (m)
LT-D-60	26.3	22.30	611.5	9.16	8.01	18.04	0.34	1.51
LT-D-61	26.5	23.75	590.5	11.65	8.11	72.31	0.31	0.57
LT-D-62	21.5	23.01	404.1	9.48	8.21	16.70	0.38	0.92
LT-D-63	27.7	24.78	634.2	13.59	8.32	47.26	0.19	0.39
LT-D-64	30.8	25.15	579.0	14.33	8.43	22.00	0.19	1.12
LT-D-65	27.5	24.56	608.1	14.30	8.35	21.37	0.23	1.15
LT-D-66	31.5	24.66	546.1	12.56	8.30	24.74	0.18	0.70
LT-D-67	29.8	23.01	618.7	9.74	7.96	22.01	0.21	1.39
LT-D-68	36.4	24.25	582.5	9.63	7.94	204.21	0.13	0.39
LT-D-69	30.3	23.86	531.1	11.13	8.23	19.98	0.23	0.78
LT-D-70	29.4	23.98	499.2	12.57	8.38	23.74	0.19	0.80
LT-D-71	22.8	23.73	617.1	3.62	7.65	29.03	0.16	0.78
LT-D-72	22.6	23.74	608.3	3.53	7.65	30.83	0.19	1.58
LT-D-73	22.4	24.50	568.5	3.88	7.69	79.04	0.48	0.34
LT-D-74	21.6	25.12	558.6	4.60	7.79	43.16	0.15	0.59
LT-D-75	23.2	24.68	620.8	6.64	7.77	21.86	0.42	0.72
LT-D-76	20.9	25.43	592.6	8.98	7.89	23.15	0.30	1.10
LT-D-77	22.5	25.56	556.8	7.76	7.84	32.35	0.26	0.79
LT-D-78	24.9	25.60	353.3	8.33	8.08	9.35	0.41	1.35
LT-D-79	22.6	22.98	604.3	4.42	7.62	14.65	0.32	1.16
LT-D-80	23.7	23.37	591.2	5.43	7.64	27.14	0.28	1.11
LT-D-81	24.8	23.79	463.6	4.06	7.58	57.67	0.44	0.51
LT-D-82	25.0	23.95	526.6	4.57	7.63	17.27	0.36	1.03
Min	**15.2**	**18.75**	**235.2**	**2.46**	**7.54**	**1.50**	**0.06**	**0.34**
Mean	**23.4**	**23.30**	**443.1**	**9.53**	**8.36**	**25.07**	**0.45**	**0.93**
Max	**36.4**	**27.90**	**739.0**	**18.76**	**9.50**	**204.21**	**1.20**	**1.81**

Table 8. *Visual assessment of aquatic and riparian vegetation classes present at a) dip net, and b) light trap sites.*

a) Dip net sites

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
DN-B-01	0	0	0	100	Open Water	50	0	0	50	0	Deciduous
DN-B-02	0	0	0	100	Open Water	65	0	30	5	0	Deciduous
DN-B-03	0	0	0	100	Open Water	50	0	50	0	0	Deciduous
DN-B-04	10	70	5	15	Floating	0	0	30	0	70	None
DN-B-05	10	0	0	90	Open Water	50	0	50	0	0	Herbaceous
DN-B-06	0	0	5	95	Open Water	*	*	*	*	*	Not recorded
DN-B-07	0	0	0	100	Open Water	50	0	50	0	0	Deciduous
DN-B-08	0	0	0	100	Open Water	50	0	50	0	0	Deciduous
DN-B-09	30	0	10	60	Open Water	10	0	30	0	60	None

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
DN-B-10	10	0	0	90	Open Water	80	0	0	20	0	Deciduous
DN-B-11	10	0	0	90	Open Water	0	0	90	10	0	Herbaceous
DN-B-12	0	0	10	90	Open Water	0	0	90	10	0	Herbaceous
DN-B-13	10	0	0	90	Open Water	10	0	60	30	0	Herbaceous
DN-B-14	0	0	5	95	Open Water	0	0	0	0	100	None
DN-B-15	0	5	5	90	Open Water	0	0	0	0	100	None
DN-B-16	0	0	10	90	Open Water	0	0	0	0	100	None
DN-B-17	15	5	5	75	Open Water	0	0	0	0	100	None
DN-B-18	10	0	0	90	Open Water	20	0	80	0	0	Herbaceous
DN-B-19	0	0	10	90	Open Water	50	0	50	0	0	Deciduous
DN-B-20	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
DN-B-21	0	0	10	90	Open Water	0	0	20	0	80	None
DN-B-22	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
DN-B-23	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
DN-B-24	0	5	15	80	Open Water	0	0	0	0	100	None
DN-B-25	0	0	10	90	Open Water	80	0	20	0	0	Deciduous
DN-B-26	20	0	0	80	Open Water	40	0	40	20	0	Herbaceous
DN-B-27	10	0	0	90	Open Water	0	0	100	0	0	Herbaceous
DN-B-28	0	0	10	90	Open Water	0	0	20	0	80	None
DN-B-29	0	0	5	95	Open Water	0	0	20	0	80	None
DN-B-30	0	0	15	85	Open Water	0	0	100	0	0	Herbaceous
DN-B-31	0	0	10	90	Open Water	0	0	100	0	0	Herbaceous
DN-B-32	20	0	20	60	Open Water	0	0	100	0	0	Herbaceous
DN-B-33	0	0	15	85	Open Water	85	0	15	0	0	Deciduous
DN-B-34	0	0	5	95	Open Water	0	0	0	0	100	None
DN-B-35	0	0	0	90	Open Water	0	0	0	0	100	None
DN-B-36	15	10	5	70	Open Water	0	0	100	0	0	Herbaceous
DN-B-37	0	0	0	100	Open Water	50	0	50	0	0	Deciduous
DN-B-38	0	0	10	90	Open Water	0	0	100	0	0	Herbaceous
DN-B-39	40	0	20	40	Open Water	30	0	70	0	0	Herbaceous
DN-B-40	0	10	15	75	Open Water	0	0	100	0	0	Herbaceous
DN-B-41	30	5	10	55	Open Water	10	0	90	0	0	Herbaceous
DN-B-42	0	0	5	95	Open Water	40	0	30	30	0	Deciduous
DN-B-43	0	0	20	80	Open Water	60	0	20	20	0	Deciduous
DN-B-44	0	0	5	95	Open Water	50	0	50	0	0	Deciduous
DN-B-45	40	0	50	10	Submerged	50	0	50	0	0	Deciduous
DN-B-46	10	0	70	20	Submerged	50	0	50	0	0	Deciduous
DN-B-47	0	0	50	50	Open Water	50	0	50	0	0	Deciduous
DN-B-48	0	0	5	95	Open Water	*	*	*	*	*	Not recorded
DN-B-49	0	0	20	80	Open Water	30	0	70	0	0	Herbaceous
DN-B-50	0	0	10	90	Open Water	0	0	0	0	100	None
DN-B-51	15	5	10	70	Open Water	0	0	100	0	0	Herbaceous
DN-B-52	0	10	30	60	Open Water	0	0	0	0	100	None
DN-B-53	0	0	0	100	Open Water	15	0	10	0	75	None
DN-B-54	10	0	10	80	Open Water	50	0	50	0	0	Deciduous
DN-B-55	10	0	0	90	Open Water	30	0	70	0	0	Herbaceous

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
DN-B-56	0	0	5	95	Open Water	0	0	0	0	100	None
DN-B-57	0	0	30	70	Open Water	0	0	0	0	100	None
DN-B-58	0	0	5	95	Open Water	0	0	0	0	100	None
DN-B-59	0	5	5	90	Open Water	0	0	0	0	100	None
DN-B-60	15	35	5	45	Open Water	0	0	100	0	0	Herbaceous
DN-B-61	0	0	5	95	Open Water	50	0	50	0	0	Deciduous
DN-B-62	0	0	5	95	Open Water	50	0	50	0	0	Deciduous
DN-B-63	30	30	30	10	Floating	50	0	50	0	0	Deciduous
DN-B-64	65	0	5	30	Emergent	50	0	50	0	0	Deciduous
DN-B-65	0	0	40	60	Open Water	40	0	60	0	0	Herbaceous
DN-B-66	0	0	5	95	Open Water	0	0	0	0	100	None
DN-B-67	15	5	5	75	Open Water	0	0	100	0	0	Herbaceous
DN-B-68	0	10	15	75	Open Water	0	0	0	0	100	None
DN-B-69	15	5	15	65	Open Water	0	0	100	0	0	Herbaceous
DN-B-70	15	0	15	70	Open Water	50	0	50	0	0	Deciduous
DN-B-71	25	0	5	70	Open Water	50	0	50	0	0	Deciduous
DN-B-72	50	0	30	20	Emergent	30	0	70	0	0	Herbaceous
DN-B-73	30	20	50	0	Submerged	50	0	50	0	0	Deciduous
DN-B-74	30	0	10	60	Open Water	0	0	100	0	0	Herbaceous
DN-B-75	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
DN-B-76	0	0	100	0	Submerged	50	0	50	0	0	Herbaceous
DN-B-77	20	0	5	75	Open Water	40	0	60	0	0	Herbaceous
DN-B-78	0	0	5	95	Open Water	0	0	0	0	100	None
DN-B-79	0	0	0	100	Open Water	0	0	0	0	100	None
DN-B-80	0	10	10	80	Open Water	0	0	0	0	100	None
DN-B-81	5	0	10	85	Open Water	0	0	100	0	0	Herbaceous
DN-B-82	70	0	10	20	Emergent	50	0	50	0	0	Deciduous
DN-B-83	0	15	0	85	Open Water	0	0	0	0	100	None
DN-B-84	30	0	40	30	Submerged	0	0	100	0	0	Herbaceous
DN-B-85	0	0	5	95	Open Water	0	0	0	0	100	None
DN-B-86	10	0	5	85	Open Water	30	0	70	0	0	Herbaceous
DN-B-87	0	0	25	75	Open Water	0	0	0	0	100	None
DN-B-88	0	0	5	95	Open Water	0	0	0	0	100	None
DN-B-89	0	0	5	95	Open Water	0	0	0	0	100	None
DN-B-90	5	15	10	70	Open Water	0	0	100	0	0	Herbaceous
DN-B-91	0	10	10	80	Open Water	0	0	0	0	100	None
DN-B-92	10	5	5	80	Open Water	0	0	100	0	0	Herbaceous
DN-B-93	0	0	0	100	Open Water	0	0	0	0	100	None
DN-D-001	0	0	0	100	Open Water	0	80	20	0	0	Coniferous
DN-D-002	10	0	0	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-003	0	80	0	20	Floating	0	0	100	0	0	Herbaceous
DN-D-004	30	30	40	0	Submerged	0	40	60	0	0	Herbaceous
DN-D-005	0	0	0	100	Open Water	0	60	10	30	0	Coniferous
DN-D-006	0	0	10	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-007	0	0	10	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-008	0	10	10	80	Open Water	10	0	90	0	0	Herbaceous

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
DN-D-009	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
DN-D-010	0	0	5	95	Open Water	0	70	30	0	0	Coniferous
DN-D-011	0	5	5	90	Open Water	10	0	90	0	0	Herbaceous
DN-D-012	0	5	5	90	Open Water	0	80	20	0	0	Coniferous
DN-D-013	0	30	10	60	Open Water	0	0	100	0	0	Herbaceous
DN-D-014	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
DN-D-015	0	0	5	95	Open Water	0	60	40	0	0	Coniferous
DN-D-016	25	25	15	35	Open Water	0	0	100	0	0	Herbaceous
DN-D-017	0	0	20	80	Open Water	0	80	20	0	0	Coniferous
DN-D-018	10	0	0	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-019	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
DN-D-020	0	10	10	80	Open Water	0	0	100	0	0	Herbaceous
DN-D-021	10	10	5	75	Open Water	80	0	20	0	0	Deciduous
DN-D-022	0	5	0	95	Open Water	20	40	40	0	0	Coniferous
DN-D-023	0	60	30	10	Floating	0	0	100	0	0	Herbaceous
DN-D-024	20	20	10	50	Open Water	20	0	80	0	0	Herbaceous
DN-D-025	10	0	0	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-026	0	20	20	60	Open Water	0	0	100	0	0	Herbaceous
DN-D-027	10	60	10	20	Floating	0	0	100	0	0	Herbaceous
DN-D-028	0	40	20	40	Open Water	50	0	50	0	0	Deciduous
DN-D-029	30	10	30	30	Emergent	0	0	100	0	0	Herbaceous
DN-D-030	0	0	5	95	Open Water	0	50	50	0	0	Coniferous
DN-D-031	0	0	80	20	Submerged	0	0	100	0	0	Herbaceous
DN-D-032	10	40	40	10	Submerged	50	0	50	0	0	Deciduous
DN-D-033	30	0	0	70	Open Water	0	70	30	0	0	Coniferous
DN-D-034	30	0	5	65	Open Water	0	0	100	0	0	Herbaceous
DN-D-035	30	0	0	70	Open Water	0	0	100	0	0	Herbaceous
DN-D-036	10	80	0	10	Floating	50	0	50	0	0	Deciduous
DN-D-037	20	0	0	80	Open Water	0	0	100	0	0	Herbaceous
DN-D-038	30	20	30	20	Submerged	0	0	100	0	0	Herbaceous
DN-D-039	10	10	60	20	Submerged	0	0	100	0	0	Herbaceous
DN-D-040	0	10	60	30	Submerged	50	0	50	0	0	Deciduous
DN-D-041	10	5	5	80	Open Water	0	70	30	0	0	Coniferous
DN-D-042	10	10	10	70	Open Water	0	0	100	0	0	Herbaceous
DN-D-043	0	0	5	95	Open Water	0	50	50	0	0	Coniferous
DN-D-044	20	40	20	20	Floating	0	0	100	0	0	Herbaceous
DN-D-045	10	0	80	10	Submerged	0	0	100	0	0	Herbaceous
DN-D-046	40	0	30	30	Emergent	50	0	50	0	0	Deciduous
DN-D-047	10	10	80	0	Submerged	*	*	*	*	*	Not recorded
DN-D-048	10	60	30	0	Floating	10	0	90	0	0	Herbaceous
DN-D-049	0	0	70	30	Submerged	50	0	50	0	0	Deciduous
DN-D-050	0	0	5	95	Open Water	10	0	90	0	0	Herbaceous
DN-D-051	10	15	0	75	Open Water	70	*	30	*	*	Deciduous
DN-D-052	5	0	5	90	Open Water	80	0	20	0	0	Deciduous
DN-D-053	0	0	0	100	Open Water	0	0	100	0	0	Herbaceous
DN-D-054	5	0	0	95	Open Water	0	0	100	0	0	Herbaceous

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
DN-D-055	0	0	15	85	Open Water	0	0	100	0	0	Herbaceous
DN-D-056	65	10	0	25	Emergent	15	0	85	0	0	Herbaceous
DN-D-057	15	15	10	60	Open Water	0	0	100	0	0	Herbaceous
DN-D-058	10	0	10	80	Open Water	10	0	90	0	0	Herbaceous
DN-D-059	5	0	5	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-060	0	0	0	100	Open Water	0	0	100	0	0	Herbaceous
DN-D-061	5	0	5	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-062	30	5	10	55	Open Water	10	0	90	0	0	Herbaceous
DN-D-063	10	5	10	75	Open Water	0	0	100	0	0	Herbaceous
DN-D-064	0	15	10	75	Open Water	50	0	50	0	0	Deciduous
DN-D-065	0	0	15	85	Open Water	0	0	100	0	0	Herbaceous
DN-D-066	10	5	0	85	Open Water	0	0	100	0	0	Herbaceous
DN-D-067	5	5	0	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-068	10	5	5	80	Open Water	0	0	100	0	0	Herbaceous
DN-D-069	15	10	10	65	Open Water	0	0	100	0	0	Herbaceous
DN-D-070	20	5	10	65	Open Water	0	0	100	0	0	Herbaceous
DN-D-071	10	10	15	75	Open Water	0	0	100	0	0	Herbaceous
DN-D-072	0	20	0	80	Open Water	0	0	100	0	0	Herbaceous
DN-D-073	25	10	0	65	Open Water	0	0	100	0	0	Herbaceous
DN-D-074	5	0	10	85	Open Water	0	0	100	0	0	Herbaceous
DN-D-075	15	5	15	65	Open Water	0	0	100	0	0	Herbaceous
DN-D-076	5	5	10	80	Open Water	0	0	100	0	0	Herbaceous
DN-D-077	0	15	15	70	Open Water	0	0	100	0	0	Herbaceous
DN-D-078	5	0	20	75	Open Water	0	0	100	0	0	Herbaceous
DN-D-079	20	5	5	70	Open Water	0	0	100	0	0	Herbaceous
DN-D-080	10	5	15	70	Open Water	0	0	100	0	0	Herbaceous
DN-D-081	0	15	5	80	Open Water	0	0	100	0	0	Herbaceous
DN-D-082	10	10	10	70	Open Water	0	0	100	0	0	Herbaceous
DN-D-083	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
DN-D-084	15	0	5	80	Open Water	0	0	100	0	0	Herbaceous
DN-D-085	15	5	5	75	Open Water	0	0	100	0	0	Herbaceous
DN-D-086	10	0	20	70	Open Water	0	0	100	0	0	Herbaceous
DN-D-087	15	5	5	75	Open Water	0	0	100	0	0	Herbaceous
DN-D-088	5	5	15	75	Open Water	0	0	100	0	0	Herbaceous
DN-D-089	10	5	5	80	Open Water	0	0	100	0	0	Herbaceous
DN-D-090	0	0	20	80	Open Water	0	0	100	0	0	Herbaceous
DN-D-091	10	15	20	55	Open Water	0	0	100	0	0	Herbaceous
DN-D-092	5	5	15	75	Open Water	0	0	100	0	0	Herbaceous
DN-D-093	10	25	10	55	Open Water	0	0	100	0	0	Herbaceous
DN-D-094	10	5	10	75	Open Water	0	0	100	0	0	Herbaceous
DN-D-095	0	5	35	60	Open Water	0	0	100	0	0	Herbaceous
DN-D-096	10	5	20	65	Open Water	0	0	100	0	0	Herbaceous
DN-D-097	5	0	5	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-098	0	0	10	90	Open Water	0	0	100	0	0	Herbaceous
DN-D-099	5	0	10	85	Open Water	0	0	100	0	0	Herbaceous
DN-D-100	10	5	5	80	Open Water	0	0	100	0	0	Herbaceous

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
DN-D-101	0	5	35	60	Open Water	0	0	100	0	0	Herbaceous
Min	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**	
Mean	**9**	**7**	**13**	**72**	**Open Water**	**13**	**4**	**66**	**1**	**16**	**Herbaceous**
Max	**70**	**80**	**100**	**100**		**85**	**80**	**100**	**50**	**100**	

b) Light trap sites

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
LT-B-01	0	0	0	100	Open Water	40	0	60	0	0	Herbaceous
LT-B-02	0	0	0	100	Open Water	0	0	80	20	0	Herbaceous
LT-B-03	30	0	0	70	Open Water	0	0	80	20	0	Herbaceous
LT-B-04	10	0	10	80	Open Water	0	0	100	0	0	Herbaceous
LT-B-05	50	0	5	45	Emergent	5	0	95	0	0	Herbaceous
LT-B-06	0	0	0	100	Open Water	0	0	80	20	0	Herbaceous
LT-B-07	0	0	0	100	Open Water	*	*	*	*	*	Not recorded
LT-B-08	0	0	0	100	Open Water	*	*	*	*	*	Not recorded
LT-B-09	0	0	0	100	Open Water	30	0	20	50	0	Shrubs
LT-B-10	0	0	0	100	Open Water	20	0	40	40	0	Shrubs
LT-B-11	90	0	0	10	Emergent	20	0	80	0	0	Herbaceous
LT-B-12	0	0	0	100	Open Water	30	0	15	5	50	None
LT-B-13	0	0	0	100	Open Water	0	0	0	0	100	None
LT-B-14	5	0	5	90	Open Water	0	0	0	0	100	None
LT-B-15	0	10	5	85	Open Water	0	0	0	0	100	None
LT-B-16	0	0	5	95	Open Water	50	0	50	0	0	Deciduous
LT-B-17	0	0	5	95	Open Water	0	0	70	0	0	Herbaceous
LT-B-18	40	0	0	60	Open Water	0	0	100	0	0	Herbaceous
LT-B-19	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
LT-B-20	0	0	5	95	Open Water	0	0	20	0	80	None
LT-B-21	0	0	10	90	Open Water	0	0	0	0	100	None
LT-B-22	10	5	10	75	Open Water	15	0	85	0	0	Herbaceous
LT-B-23	15	5	10	70	Open Water	0	0	0	0	100	None
LT-B-24	0	5	10	85	Open Water	0	0	0	0	100	None
LT-B-25	40	0	0	60	Open Water	20	0	60	20	0	Herbaceous
LT-B-26	0	0	5	95	Open Water	60	0	20	20	0	Deciduous
LT-B-27	40	0	5	55	Open Water	0	0	100	0	0	Herbaceous
LT-B-28	0	0	5	95	Open Water	0	0	20	0	80	None
LT-B-29	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
LT-B-30	0	0	10	90	Open Water	0	0	100	0	0	Herbaceous
LT-B-31	0	5	10	85	Open Water	0	0	100	0	0	Herbaceous
LT-B-32	0	5	10	85	Open Water	0	0	100	0	0	Herbaceous
LT-B-33	10	0	10	80	Open Water	20	0	60	20	0	Herbaceous
LT-B-34	0	0	10	90	Open Water	0	0	0	0	100	None
LT-B-35	0	0	10	90	Open Water	0	0	50	0	50	None

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
LT-B-36	0	0	10	90	Open Water	0	0	0	0	100	None
LT-B-37	0	0	10	90	Open Water	0	0	0	0	100	None
LT-B-38	0	0	0	100	Open Water	0	0	0	0	100	None
LT-B-39	0	0	0	100	Open Water	0	0	0	0	100	None
LT-B-40	5	0	5	90	Open Water	80	0	20	0	0	Deciduous
LT-B-41	20	0	20	60	Open Water	0	60	40	0	0	Coniferous
LT-B-42	60	20	20	0	Emergent	60	0	40	0	0	Deciduous
LT-B-43	0	0	5	95	Open Water	60	0	40	0	0	Deciduous
LT-B-44	0	0	100	0	Submerged	50	0	50	0	0	Deciduous
LT-B-45	0	0	0	100	Open Water	0	0	100	0	0	Herbaceous
LT-B-46	0	0	15	85	Open Water	0	0	100	0	0	Herbaceous
LT-B-47	0	10	10	80	Open Water	0	0	100	0	0	Herbaceous
LT-B-48	10	0	10	80	Open Water	60	0	40	0	0	Deciduous
LT-B-49	70	0	15	15	Emergent	50	0	50	0	0	Deciduous
LT-B-50	0	0	5	95	Open Water	20	0	80	0	0	Herbaceous
LT-B-51	0	0	5	95	Open Water	60	0	40	0	0	Deciduous
LT-B-52	0	0	0	100	Open Water	0	0	0	0	100	None
LT-B-53	0	5	5	90	Open Water	0	0	0	0	100	None
LT-B-54	0	0	5	95	Open Water	50	0	50	0	0	Deciduous
LT-B-55	0	0	5	95	Open Water	50	0	50	0	0	Deciduous
LT-B-56	0	10	15	75	Open Water	0	0	0	0	100	None
LT-B-57	0	0	40	60	Open Water	60	0	40	0	0	Deciduous
LT-B-58	0	0	5	95	Open Water	70	0	30	0	0	Deciduous
LT-B-59	30	0	60	10	Submerged	0	0	100	0	0	Herbaceous
LT-B-60	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
LT-B-61	0	0	5	95	Open Water	0	0	0	0	100	None
LT-B-62	0	5	5	90	Open Water	0	0	0	0	100	None
LT-B-63	0	5	50	45	Submerged	0	0	0	0	100	None
LT-B-64	0	0	5	95	Open Water	85	0	15	0	0	Deciduous
LT-B-65	40	0	20	40	Open Water	50	0	50	0	0	Deciduous
LT-B-66	30	20	30	20	Submerged	50	0	50	0	0	Deciduous
LT-B-67	0	0	40	60	Open Water	0	0	100	0	0	Herbaceous
LT-B-68	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
LT-B-69	0	0	5	95	Open Water	0	0	0	0	100	None
LT-B-70	0	0	0	100	Open Water	0	0	0	0	100	None
LT-B-71	15	10	10	65	Open Water	0	0	100	0	0	Herbaceous
LT-B-72	0	0	10	90	Open Water	15	0	0	0	85	None
LT-B-73	80	0	10	10	Emergent	50	0	50	0	0	Herbaceous
LT-B-74	70	0	20	10	Emergent	0	0	100	0	0	Herbaceous
LT-B-75	0	0	5	95	Open Water	70	0	30	0	0	Deciduous
LT-B-76	0	0	10	90	Open Water	70	0	30	0	0	Deciduous
LT-B-77	0	0	5	95	Open Water	0	0	0	0	100	None
LT-B-78	0	0	5	95	Open Water	0	0	5	0	95	None
LT-B-79	0	0	5	95	Open Water	90	0	10	0	0	Deciduous
LT-B-80	0	0	0	100	Open Water	0	0	0	0	100	None
LT-D-01	0	0	0	100	Open Water	0	90	10	0	0	Coniferous

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
LT-D-02	10	0	0	90	Open Water	0	0	100	0	0	Herbaceous
LT-D-03	20	0	0	80	Open Water	70	0	30	0	0	Deciduous
LT-D-04	0	0	0	100	Open Water	0	0	5	0	95	None
LT-D-05	0	10	0	90	Open Water	0	0	100	0	0	Herbaceous
LT-D-06	0	10	0	90	Open Water	0	0	100	0	0	Herbaceous
LT-D-07	0	10	0	90	Open Water	10	0	90	0	0	Herbaceous
LT-D-08	0	0	0	100	Open Water	0	0	100	0	0	Herbaceous
LT-D-09	0	0	5	95	Open Water	0	60	30	10	0	Coniferous
LT-D-10	0	20	0	80	Open Water	0	0	100	0	0	Herbaceous
LT-D-11	0	0	0	100	Open Water	0	70	30	0	0	Coniferous
LT-D-12	0	15	10	75	Open Water	0	0	100	0	0	Herbaceous
LT-D-13	0	0	0	100	Open Water	0	90	5	5	0	Coniferous
LT-D-14	0	0	5	95	Open Water	0	80	20	0	0	Coniferous
LT-D-15	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
LT-D-16	0	45	10	45	Open Water	0	0	100	0	0	Herbaceous
LT-D-17	0	10	10	80	Open Water	0	0	100	0	0	Herbaceous
LT-D-18	0	0	5	95	Open Water	0	0	0	0	100	None
LT-D-19	0	10	5	85	Open Water	0	0	100	0	0	Herbaceous
LT-D-20	5	5	5	85	Open Water	0	0	100	0	0	Herbaceous
LT-D-21	20	0	0	80	Open Water	0	80	20	0	0	Coniferous
LT-D-22	10	35	0	55	Open Water	0	80	20	0	0	Coniferous
LT-D-23	0	10	5	85	Open Water	60	0	40	0	0	Deciduous
LT-D-24	40	10	40	10	Emergent	*	*	*	*	*	Not recorded
LT-D-25	30	0	0	70	Open Water	0	80	20	0	0	Coniferous
LT-D-26	20	30	20	30	Floating	40	0	60	0	0	Herbaceous
LT-D-27	20	80	0	0	Floating	0	0	100	0	0	Herbaceous
LT-D-28	0	0	0	100	Open Water	40	0	60	0	0	Herbaceous
LT-D-29	30	0	5	65	Open Water	0	0	100	0	0	Herbaceous
LT-D-30	0	0	0	100	Open Water	0	50	50	0	0	Coniferous
LT-D-31	0	20	20	60	Open Water	0	100	0	0	0	Coniferous
LT-D-32	0	10	20	70	Open Water	0	0	100	0	0	Herbaceous
LT-D-33	0	0	0	100	Open Water	0	70	30	0	0	Coniferous
LT-D-34	5	25	10	60	Open Water	0	0	100	0	0	Herbaceous
LT-D-35	30	0	0	70	Open Water	40	0	60	0	0	Herbaceous
LT-D-36	30	40	30	0	Floating	50	0	50	0	0	Herbaceous
LT-D-37	55	0	5	40	Emergent	0	0	100	0	0	Herbaceous
LT-D-38	0	0	5	95	Open Water	0	80	20	0	0	Coniferous
LT-D-39	10	10	80	0	Submerged	0	0	100	0	0	Herbaceous
LT-D-40	65	0	5	30	Emergent	50	0	50	0	0	Herbaceous
LT-D-41	10	0	0	90	Open Water	0	0	100	0	0	Herbaceous
LT-D-42	40	0	0	60	Open Water	50	0	30	20	0	Deciduous
LT-D-43	70	0	5	25	Emergent	20	0	80	0	0	Herbaceous
LT-D-44	0	0	0	100	Open Water	5	0	95	0	0	Herbaceous
LT-D-45	30	5	20	45	Open Water	0	0	100	0	0	Herbaceous
LT-D-46	0	5	0	95	Open Water	5	0	95	0	0	Herbaceous
LT-D-47	20	5	5	70	Open Water	0	0	100	0	0	Herbaceous

Site code	Emergent	Floating	Submerged	Open Water	Dominant aquatic vegetation class	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant riparian vegetation class
LT-D-48	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
LT-D-49	20	25	5	50	Open Water	0	0	100	0	0	Herbaceous
LT-D-50	5	25	0	70	Open Water	0	0	100	0	0	Herbaceous
LT-D-51	30	0	0	70	Open Water	0	0	100	0	0	Herbaceous
LT-D-52	10	0	0	90	Open Water	0	0	100	0	0	Herbaceous
LT-D-53	0	20	0	80	Open Water	0	0	100	0	0	Herbaceous
LT-D-54	10	5	0	85	Open Water	0	0	100	0	0	Herbaceous
LT-D-55	20	0	0	80	Open Water	0	0	100	0	0	Herbaceous
LT-D-56	5	0	10	85	Open Water	0	0	100	0	0	Herbaceous
LT-D-57	30	30	10	30	Open Water	0	0	100	0	0	Herbaceous
LT-D-58	0	5	5	90	Open Water	0	0	100	0	0	Herbaceous
LT-D-59	15	0	5	80	Open Water	0	0	100	0	0	Herbaceous
LT-D-60	0	0	10	90	Open Water	0	0	100	0	0	Herbaceous
LT-D-61	15	10	5	70	Open Water	0	0	100	0	0	Herbaceous
LT-D-62	5	20	15	60	Open Water	20	0	80	0	0	Herbaceous
LT-D-63	15	5	0	80	Open Water	0	0	100	0	0	Herbaceous
LT-D-64	20	5	15	60	Open Water	0	0	100	0	0	Herbaceous
LT-D-65	0	5	10	85	Open Water	0	0	100	0	0	Herbaceous
LT-D-66	15	25	10	50	Open Water	0	0	100	0	0	Herbaceous
LT-D-67	5	0	10	85	Open Water	0	0	100	0	0	Herbaceous
LT-D-68	40	5	5	50	Open Water	0	0	100	0	0	Herbaceous
LT-D-69	10	30	10	50	Open Water	0	0	100	0	0	Herbaceous
LT-D-70	0	30	10	60	Open Water	0	0	100	0	0	Herbaceous
LT-D-71	5	5	5	85	Open Water	0	0	100	0	0	Herbaceous
LT-D-72	0	0	5	95	Open Water	0	0	100	0	0	Herbaceous
LT-D-73	15	5	5	75	Open Water	0	0	100	0	0	Herbaceous
LT-D-74	5	15	10	70	Open Water	0	0	100	0	0	Herbaceous
LT-D-75	10	0	10	80	Open Water	10	0	90	0	0	Herbaceous
LT-D-76	10	5	5	80	Open Water	0	0	100	0	0	Herbaceous
LT-D-77	0	0	15	85	Open Water	0	0	100	0	0	Herbaceous
LT-D-78	5	10	10	75	Open Water	0	0	100	0	0	Herbaceous
LT-D-79	5	5	5	85	Open Water	0	0	100	0	0	Herbaceous
LT-D-80	0	5	15	75	Open Water	0	0	100	0	0	Herbaceous
LT-D-81	5	5	10	80	Open Water	0	0	100	0	0	Herbaceous
LT-D-82	0	5	5	80	Open Water	0	0	100	0	0	Herbaceous
Min	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**	
Mean	**10**	**5**	**8**	**76**	**Open Water**	**12**	**6**	**63**	**2**	**17**	**Herbaceous**
Max	**90**	**80**	**100**	**100**		**90**	**100**	**100**	**50**	**100**	

Table 9. *Aquatic vegetation species occurrence at site and/or on rake at a) dip net, b) light trap sites. Rake submerged aquatic vegetation (SAV) or filamentous (fil.) algae scores are reflective of percent coverage of rake tines: no macrophytes present (score = 0), 1 – 25% of rake tines covered (score = 1), 26 – 100% of rake tines covered (score = 2), and substantial overflow of macrophytes across the majority of the tines (score = 3).*

a) Dip net sites

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	*Salix* sp.	Total species
DN-B-01	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-02	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-03	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-04	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-05	*	*	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-06	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-07	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-08	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-09	*	*	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**3**
DN-B-10	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-11	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-12	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-13	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-15	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-16	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-17	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	**2**
DN-B-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-19	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-20	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-21	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	*Salix* sp.	Total species
DN-B-23	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
DN-B-24	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-25	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
DN-B-28	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-29	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-30	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-31	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
DN-B-32	0	3	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	**3**
DN-B-33	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-34	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**3**
DN-B-35	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
DN-B-36	0	2	1	0	0	1	0	1	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	**7**
DN-B-37	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**2**
DN-B-38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
DN-B-39	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-40	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**3**
DN-B-41	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**4**
DN-B-42	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-43	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-44	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-45	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	**5**
DN-B-46	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	**5**
DN-B-47	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	**4**
DN-B-48	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**3**
DN-B-49	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-50	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**3**
DN-B-51	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	*Salix* sp.	Total species
DN-B-52	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
DN-B-53	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-54	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-55	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-56	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-57	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**3**
DN-B-58	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**2**
DN-B-59	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-60	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-61	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
DN-B-62	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	**3**
DN-B-63	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	1	1	0	0	0	**6**
DN-B-64	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	**5**
DN-B-65	3	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**3**
DN-B-66	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**5**
DN-B-67	0	2	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-68	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**3**
DN-B-69	1	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	**4**
DN-B-70	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**4**
DN-B-71	1	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	**5**
DN-B-72	1	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
DN-B-73	1	0	0	1	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	1	0	0	0	**6**
DN-B-74	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	**3**
DN-B-75	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-76	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	1	0	0	1	0	**5**
DN-B-77	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	**3**
DN-B-78	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**3**
DN-B-79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-80	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**5**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	*Salix* sp.	Total species
DN-B-81	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**3**
DN-B-82	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	**4**
DN-B-83	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**2**
DN-B-84	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-85	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	**3**
DN-B-86	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-87	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	**4**
DN-B-88	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**2**
DN-B-89	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**2**
DN-B-90	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**6**
DN-B-91	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-92	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-B-93	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-001	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-002	*	*	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-003	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-004	*	*	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-006	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-007	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-008	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-009	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
DN-D-011	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
DN-D-012	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
DN-D-013	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-014	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-015	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
DN-D-016	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	*Salix* sp.	Total species
DN-D-017	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-018	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-019	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**2**
DN-D-020	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-021	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-022	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-023	2	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-024	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-025	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-026	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	**4**
DN-D-027	2	2	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	**5**
DN-D-028	2	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-029	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	**3**
DN-D-030	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
DN-D-031	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-032	2	0	0	1	0	1	1	1	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	**7**
DN-D-033	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-034	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	**3**
DN-D-035	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	**1**
DN-D-036	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	**3**
DN-D-037	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-038	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	**4**
DN-D-039	3	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-040	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-041	1	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	**4**
DN-D-042	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	**5**
DN-D-043	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
DN-D-044	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	**4**
DN-D-045	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	**3**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	*Salix* sp.	Total species
DN-D-046	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	**2**
DN-D-047	3	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-048	2	0	0	1	0	0	1	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	**6**
DN-D-049	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**2**
DN-D-050	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
DN-D-051	*	*	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	**3**
DN-D-052	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	**2**
DN-D-053	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-054	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-055	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-056	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-057	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-058	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
DN-D-059	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-060	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-061	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-062	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
DN-D-063	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
DN-D-064	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-065	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-066	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-067	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	**5**
DN-D-068	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-069	1	0	0	1	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	**5**
DN-D-070	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
DN-D-071	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**4**
DN-D-072	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-074	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**2**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	*Salix* sp.	Total species
DN-D-075	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-076	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-077	1	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	**4**
DN-D-078	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**3**
DN-D-079	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-080	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	**3**
DN-D-081	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
DN-D-082	1	1	1	1	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	**6**
DN-D-083	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
DN-D-084	2	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	**6**
DN-D-085	1	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	**3**
DN-D-086	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-087	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-088	3	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	**4**
DN-D-089	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-090	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**4**
DN-D-091	3	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	**5**
DN-D-092	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	1	0	**5**
DN-D-093	1	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**3**
DN-D-094	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	**2**
DN-D-095	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
DN-D-096	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-097	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
DN-D-098	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**4**
DN-D-099	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	**4**
DN-D-100	2	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**3**
DN-D-101	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**4**
Total sites	**1**	**0**	**40**	**97**	**3**	**13**	**6**	**54**	**6**	**1**	**20**	**25**	**8**	**0**	**14**	**12**	**46**	**14**	**14**	**18**	**0**	**29**	**1**	**19**

b) Light trap sites

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	Willow sp.	Total species
LT-B-01	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-02	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-03	*	*	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-04	*	*	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**2**
LT-B-05	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	**2**
LT-B-06	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-07	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-08	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-09	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
LT-B-10	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	**4**
LT-B-11	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**2**
LT-B-12	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-13	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-14	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-15	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
LT-B-17	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
LT-B-19	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**2**
LT-B-20	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-21	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**3**
LT-B-22	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-B-23	1	1	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**4**
LT-B-24	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**3**
LT-B-25	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-26	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-27	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	Willow sp.	Total species
LT-B-28	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**2**
LT-B-29	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
LT-B-31	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-32	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
LT-B-33	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	**3**
LT-B-34	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-35	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
LT-B-36	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	**3**
LT-B-37	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-40	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-B-41	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-B-42	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**3**
LT-B-43	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
LT-B-44	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	**6**
LT-B-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-46	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-47	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-48	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**2**
LT-B-49	1	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	**6**
LT-B-50	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	**3**
LT-B-51	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	**4**
LT-B-52	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
LT-B-53	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-B-54	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-B-55	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
LT-B-56	1	2	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**4**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	Willow sp.	Total species
LT-B-57	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-58	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	**3**
LT-B-59	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	**4**
LT-B-60	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	**3**
LT-B-61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
LT-B-62	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-63	2	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**3**
LT-B-64	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**4**
LT-B-65	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	**4**
LT-B-66	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	**6**
LT-B-67	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	**3**
LT-B-68	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	**3**
LT-B-69	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-71	1	2	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	**5**
LT-B-72	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
LT-B-73	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-B-74	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**3**
LT-B-75	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**3**
LT-B-76	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	**5**
LT-B-77	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**
LT-B-78	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-B-79	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
LT-B-80	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-01	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-02	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-03	*	*	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-04	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	Willow sp.	Total species
LT-D-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-07	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-08	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-09	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-12	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
LT-D-15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	**2**
LT-D-16	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-17	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	**3**
LT-D-18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**
LT-D-19	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
LT-D-20	3	1	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-21	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-22	2	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	**3**
LT-D-23	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	**2**
LT-D-24	2	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	**5**
LT-D-25	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	**2**
LT-D-26	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	**3**
LT-D-27	3	0	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	**4**
LT-D-28	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
LT-D-29	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-31	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-32	3	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**5**
LT-D-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-34	1	1	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	**6**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	Willow sp.	Total species
LT-D-35	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	**1**
LT-D-36	2	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	**3**
LT-D-37	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	**3**
LT-D-38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**
LT-D-39	2	2	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	**6**
LT-D-40	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**2**
LT-D-41	*	*	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-42	*	*	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	**3**
LT-D-43	*	*	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-44	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-45	*	*	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	**3**
LT-D-46	*	*	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-47	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-48	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**2**
LT-D-49	1	0	0	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	**5**
LT-D-50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-56	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
LT-D-57	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-58	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-59	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
LT-D-60	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
LT-D-61	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	**4**
LT-D-62	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**3**
LT-D-63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

Site Code	Rake SAV	Rake fil. algae	Algae	*Ceratophyllum demersum*	*Elodea canadensis*	*Hydrocharis morsus-ranae*	*Lemna* sp.	*Myriophyllum* sp.	*Nelumbo* sp.	*Nuphar lutea*	*Nymphaea* sp.	*Phragmites australis*	*Poaceae*	*Potamogeton amplifolius*	*Potamogeton crispus*	*Potamogeton richardsonii*	*Potamogeton* sp.	*Sparganium* sp.	*Stuckenia pectinatus*	*Typha* sp.	Unknown	*Vallisneria americana*	Willow sp.	Total species
LT-D-64	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**2**
LT-D-65	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**2**
LT-D-66	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-67	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-68	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-69	1	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-D-70	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	**4**
LT-D-71	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	**4**
LT-D-72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-73	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-D-74	1	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**3**
LT-D-75	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-76	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**2**
LT-D-77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-78	2	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	**4**
LT-D-79	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-80	3	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**3**
LT-D-81	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-82	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	**3**
Total sites	**1**	**0**	**25**	**81**	**2**	**11**	**8**	**27**	**1**	**2**	**15**	**15**	**10**	**1**	**13**	**10**	**24**	**5**	**17**	**17**	**2**	**18**	**3**	**21**

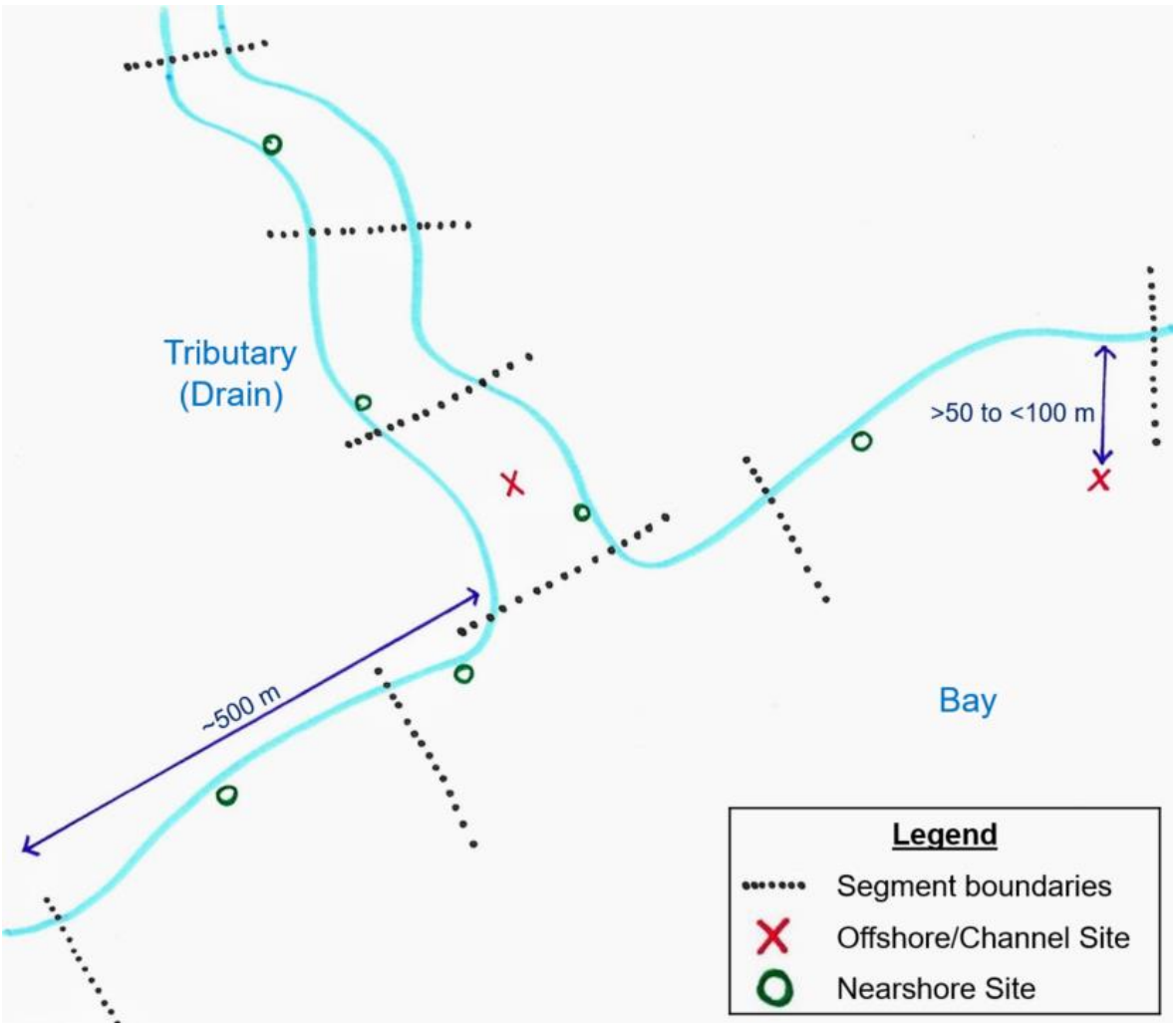


Figure 1. *Diagram depicting sampling habitats (drain or bay), zones (nearshore or offshore/channel), and constructed segments in which targeted sampling for larval gar was conducted using dip nets and light traps in Rondeau Bay, Bates-Bloomfield Drain, and Mcdougall Drain in 2018. Drain and bay habitats were divided into three segments of equal length to aid sampling crews in spacing sites and ensuring consistent spatial coverage. One nearshore site per segment, and one offshore/channel site per habitat were sampled each day with each gear type. Diagram is not to scale.*

a)

b)

c)

Figure 2. *Dip net sampling photographs of a) larval gar camouflaged among the vegetation (photo taken by N. Bohlender), b) zoomed in on larval gar from photo a, c) sampling crew demonstrating crew member placement on boat and dip netting technique.*

Figure 3. *Light trap sampling photographs: a) image of WaterMark® Quadrafoil Larval Fish Light Trap, b) light trap tethered to float and anchor at nearshore bay site, c) light trap and float set at nearshore drain site, d) sampling crew members rinsing larval fishes from light trap collecting tray.*

Figure 4*. Photographs of live larval fishes captured during dip net and light trap sampling: a) dip-netted non-gar larval fishes, b) non-gar larval fishes rinsed from light trap collection tray, c) dip-netted larval gar.*

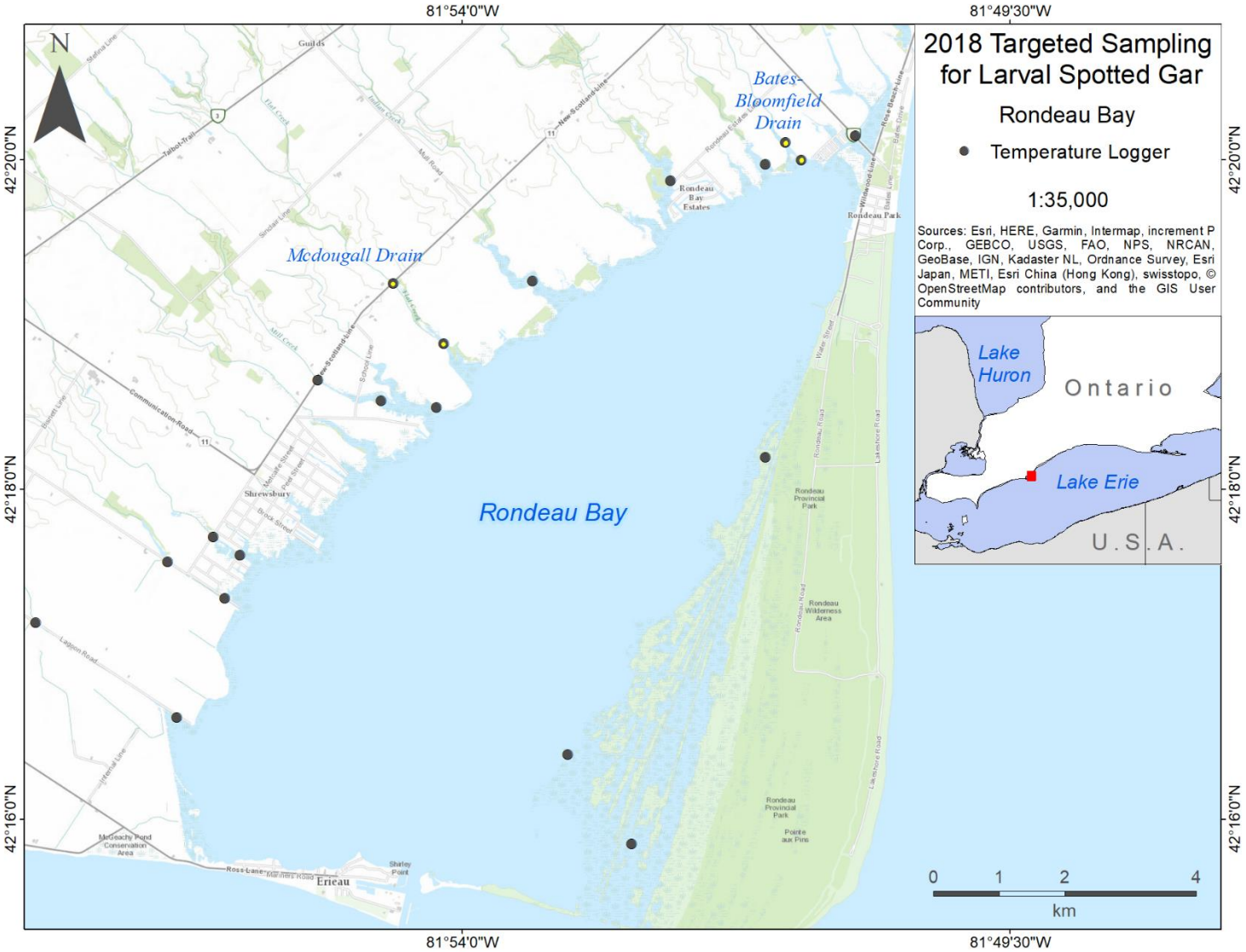


Figure 5. *Temperature logger locations in Rondeau Bay. Loggers were deployed in April, 2017 and retrieved in September, 2018. Loggers placed in Bates-Bloomfield and Mcdougall drains are depicted with a yellow center.*

a)

b)

Figure 6. *Aquatic macrophytes were assessed a) visually by percent areal cover of vegetation classes, and b) using a submerged aquatic vegetation rake method. Species of macrophytes at the site were recorded in aggregate based on the use of both methods.*

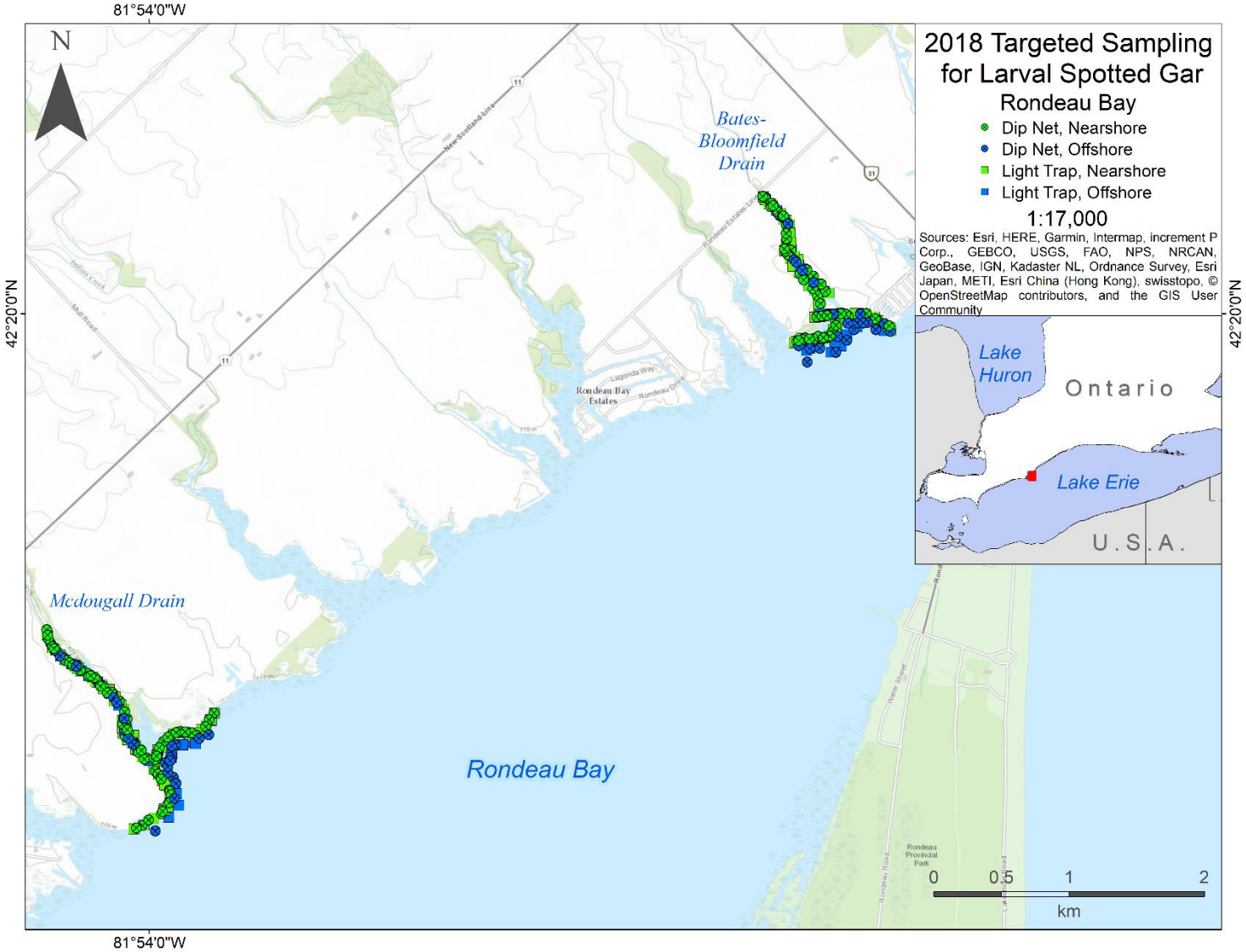


Figure 7. *Map of all larval sampling conducted in Rondeau Bay, Bates-Bloomfield Drain and Mcdougall Drain in spring 2018.*

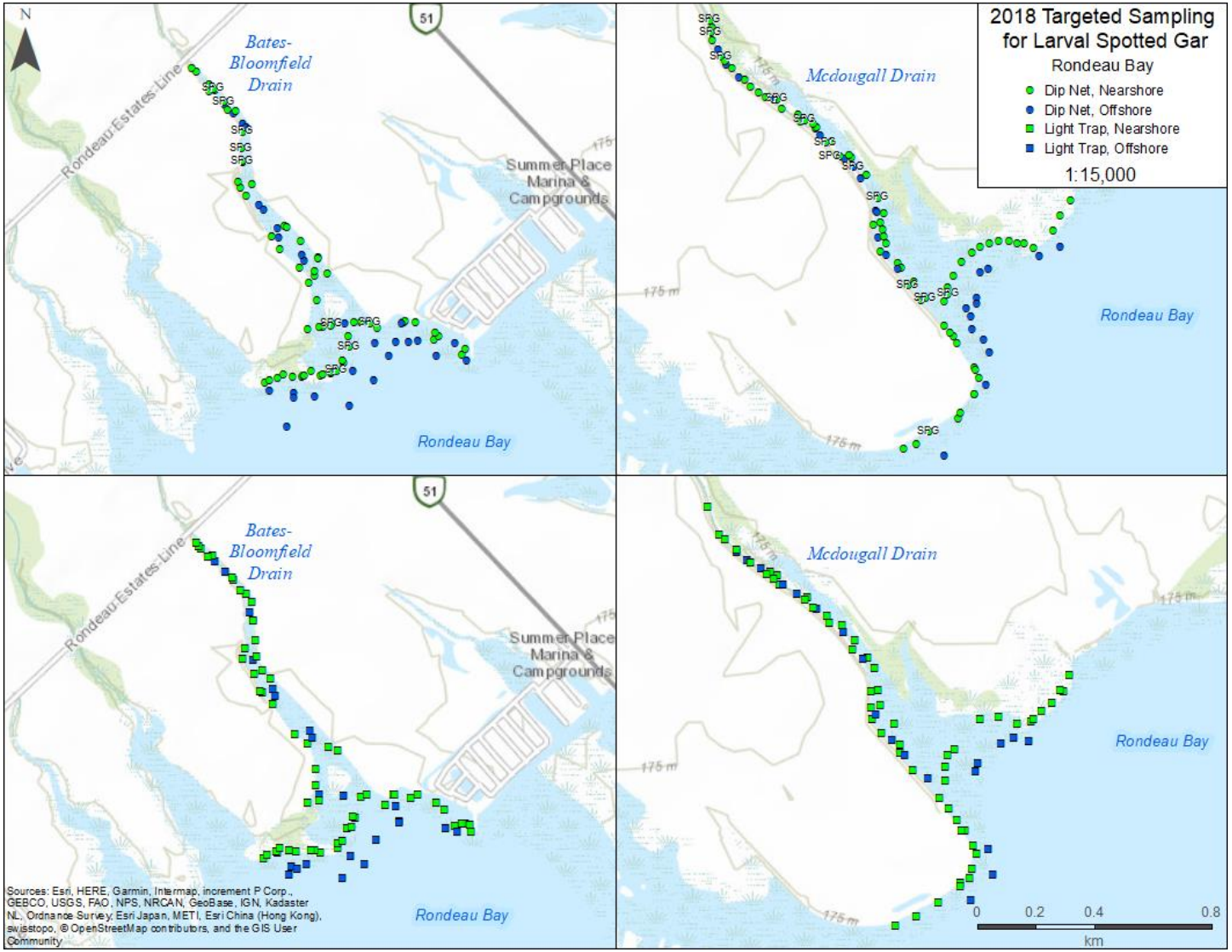
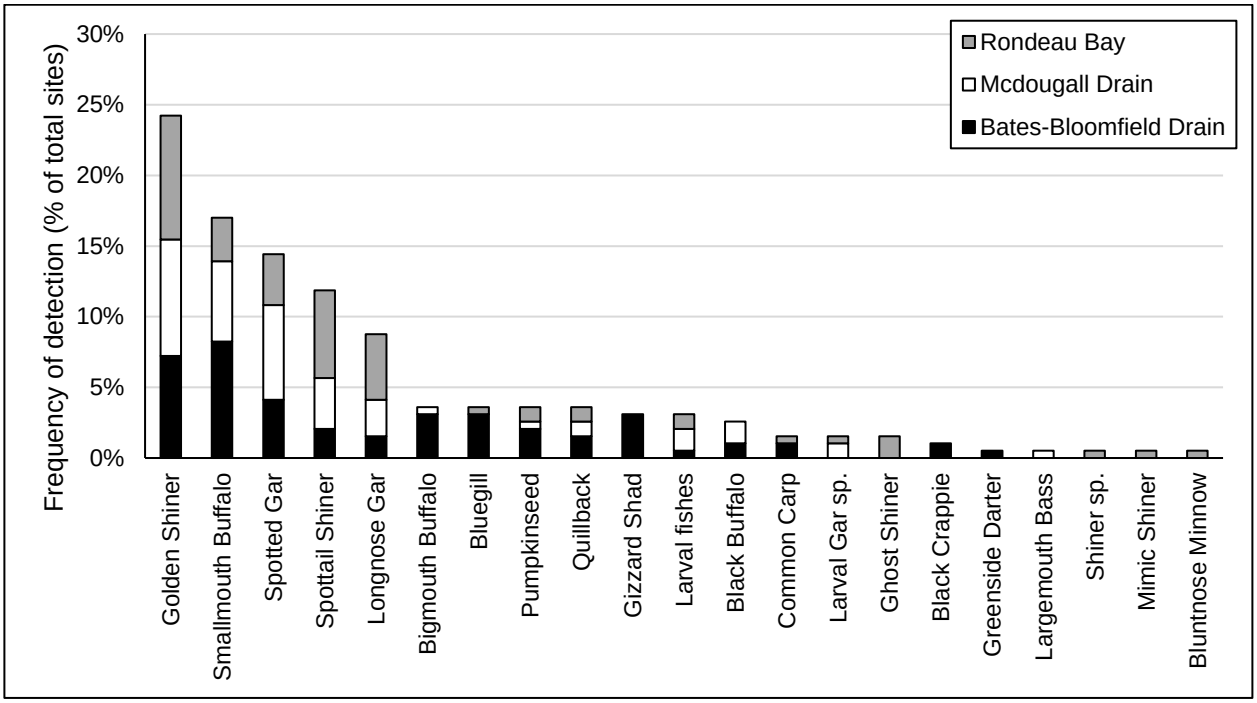
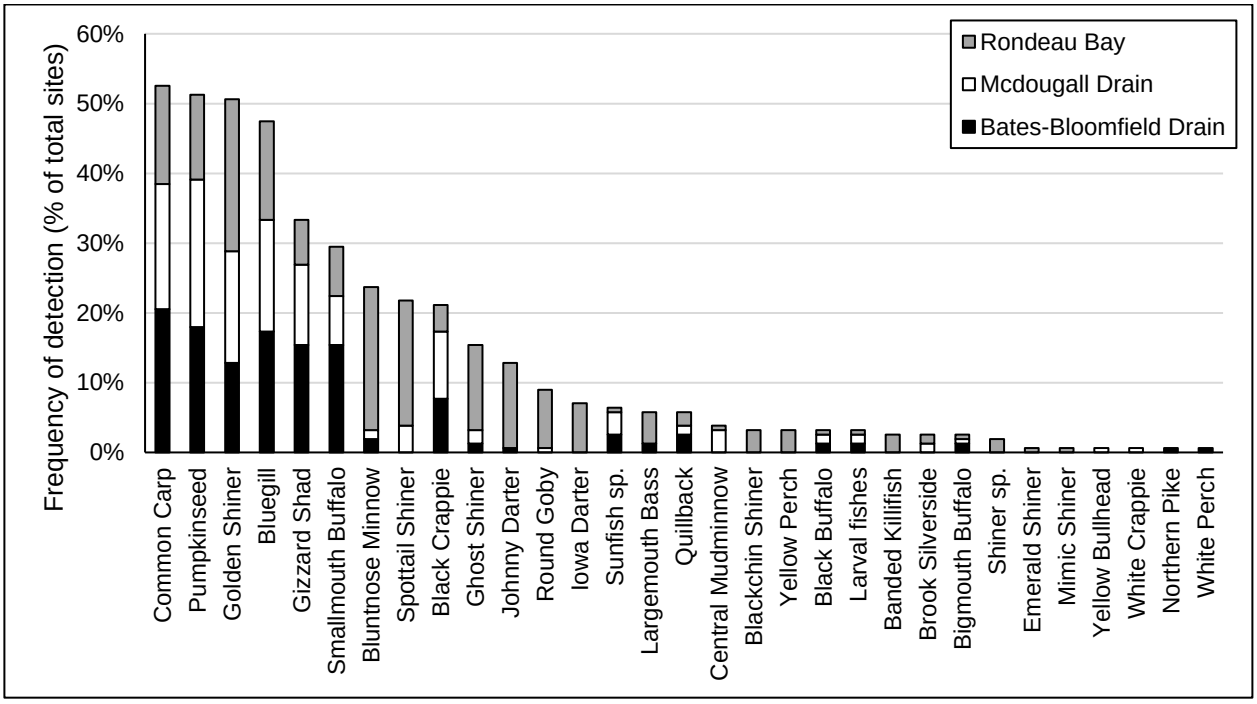


Figure 8. *Maps of targeted sampling for larval gar in Rondeau Bay. Dip net sites are shown on the top row and light trap sites are shown on the bottom row; sites in Bates-Bloomfield Drain (and associated bay sites) are shown on the left side, and sites in Mcdougall Drain (and associated bay sites) are shown on the right side. SPG indicates Spotted Gar was captured at the site.*

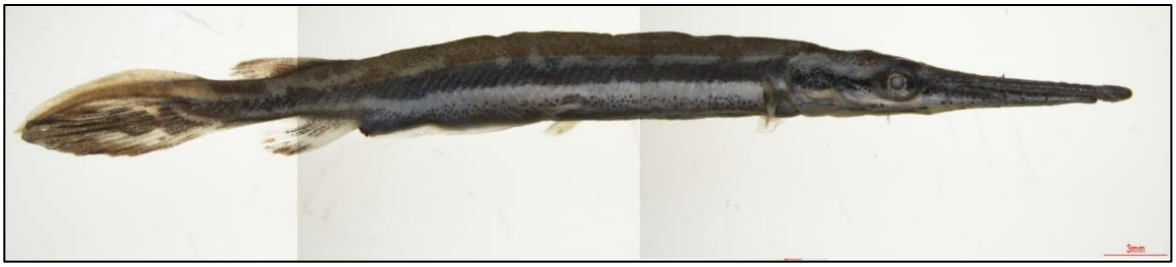


a) Dip net sampling (194 sites)



b) Light trap sampling (156 sites)

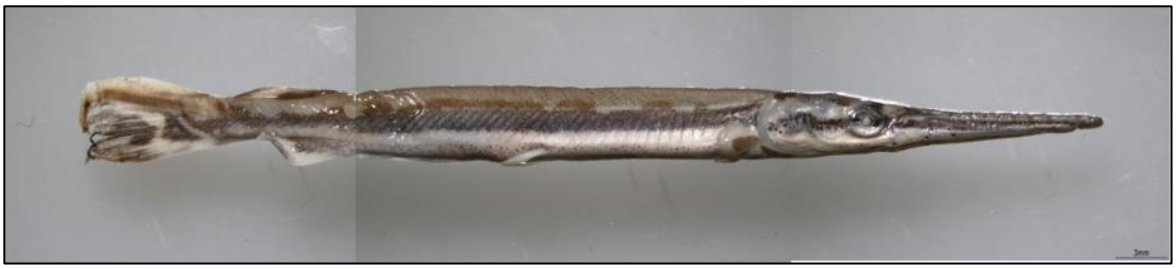
***Figure 9**. Frequency of detection of fish species as proportion of total sites sampled by a) dip nets (n=194 sites), and b) light traps (n=156 successfully sampled sites) of Rondeau Bay and drains in 2018.*



a) Spotted Gar (ID: 43486)

b) Spotted Gar (ID: 20653)

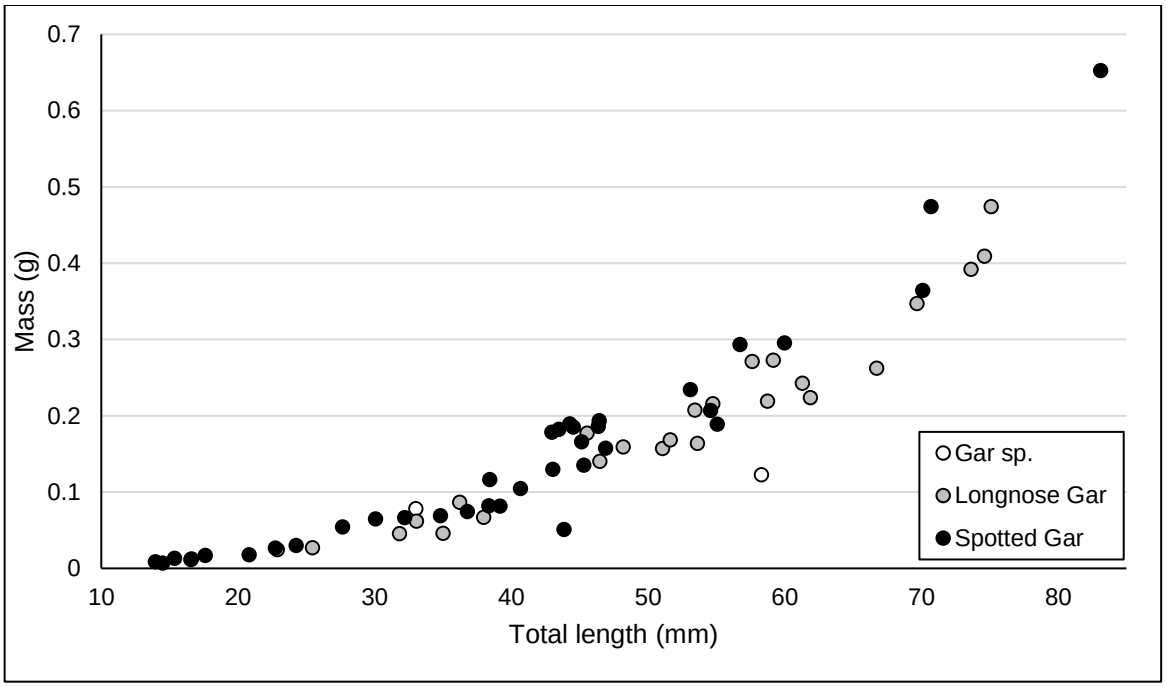
c) Longnose Gar (ID: 20693)



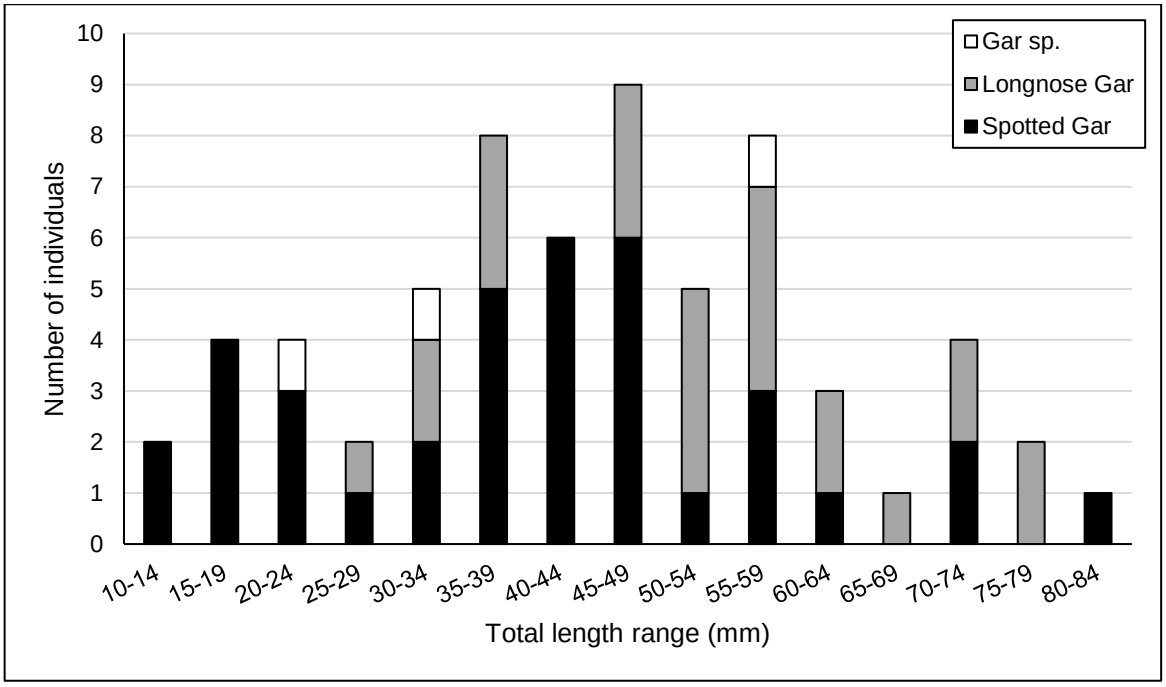
d) Longnose Gar (ID: 63437)

e) Gar sp. (ID: 43664)

***Figure 10**. Images of preserved larval gar specimens taken with microscope camera: a) 44.27 mm Spotted Gar from site DN-B-74, b) 15.35 mm Spotted Gar from site DN-D-087, c) 25.44 mm Longnose Gar from site DN-B-50, d) 59.17 mm Longnose Gar from site DN-B-72, and e) desiccated 58.29 mm larval gar sp. from site DN-D-086.*



a)



b)

Figure 11. *Gar length and weight data: a) preserved length-weight relationship, and b) length-frequency of preserved larval Spotted Gar (n=37), Longnose Gar (n=24), and gar sp. (n=3) captured with dip nets in Rondeau Bay, Bates-Bloomfield Drain, and Mcdougall Drain in 2018*

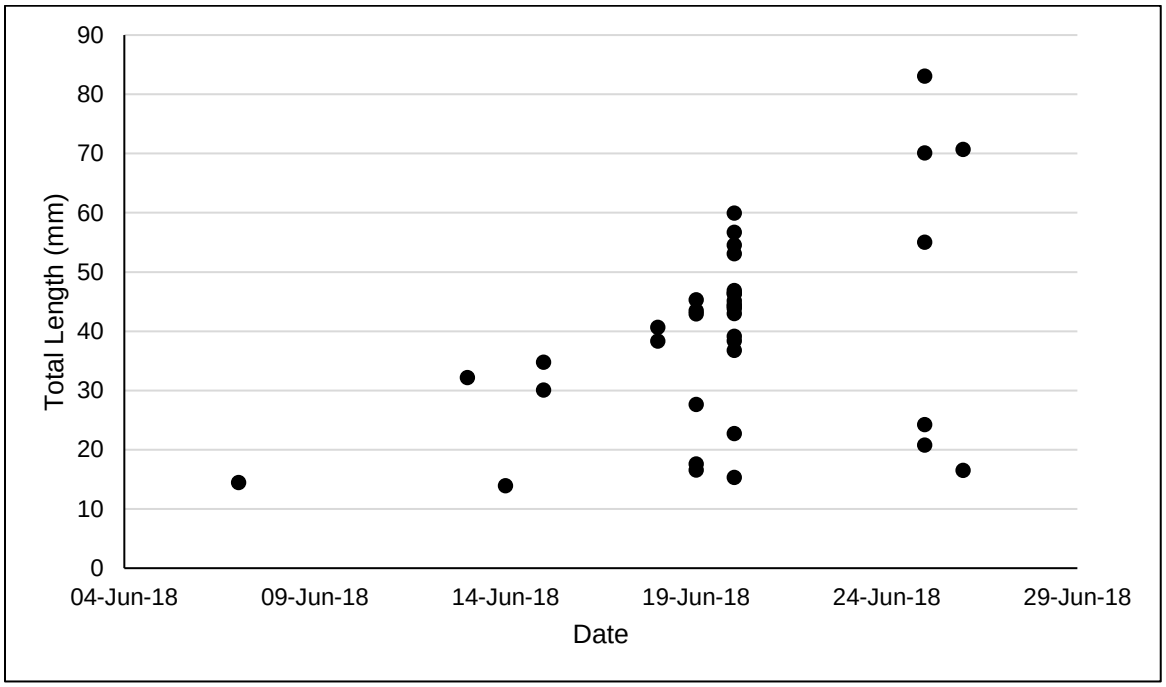


***Figure 12**. Total length (mm) of Spotted Gar (n=37) by capture date from Rondeau Bay and drains in 2018.*

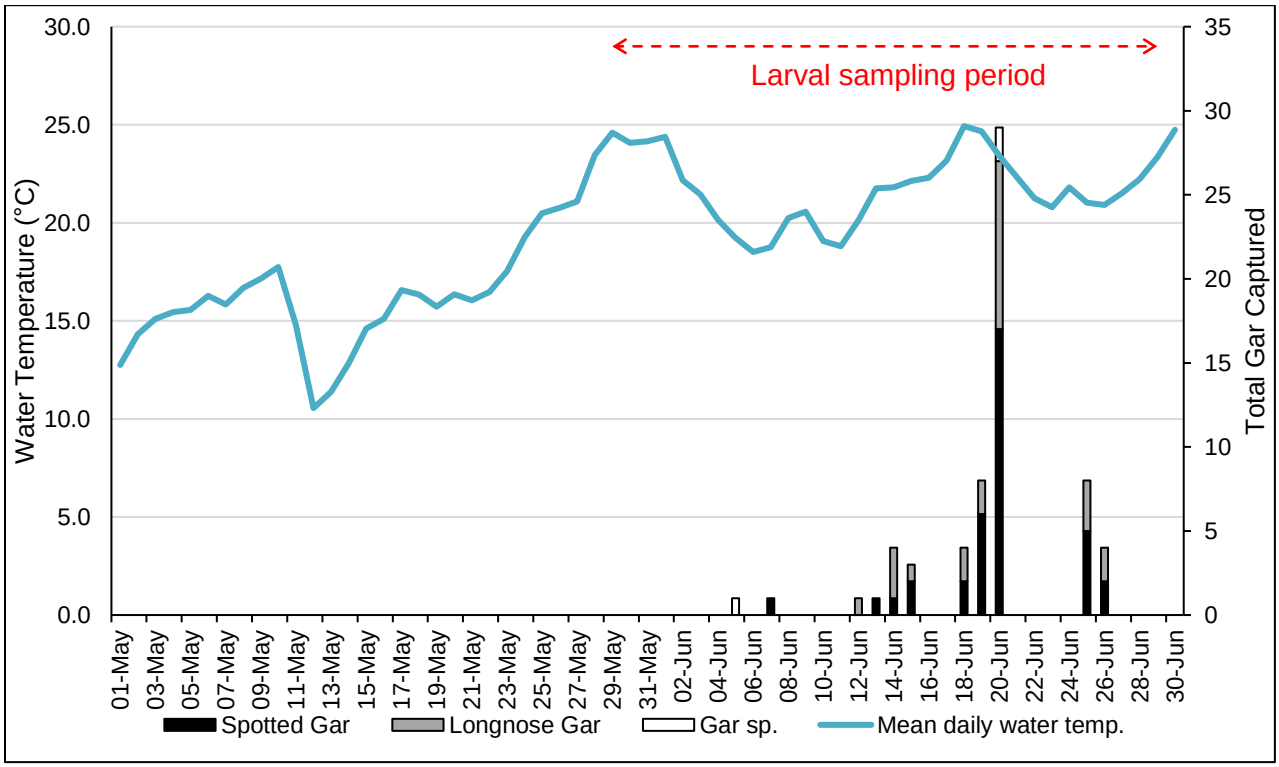


***Figure 13.** Daily total larval gar captured (by species) during the targeted larval sampling period (May 29 – June 26), and the mean daily water temperature from four temperature data loggers set in Mcdougall and Bates-Bloomfield drains from May 1 to June 30, 2018.*

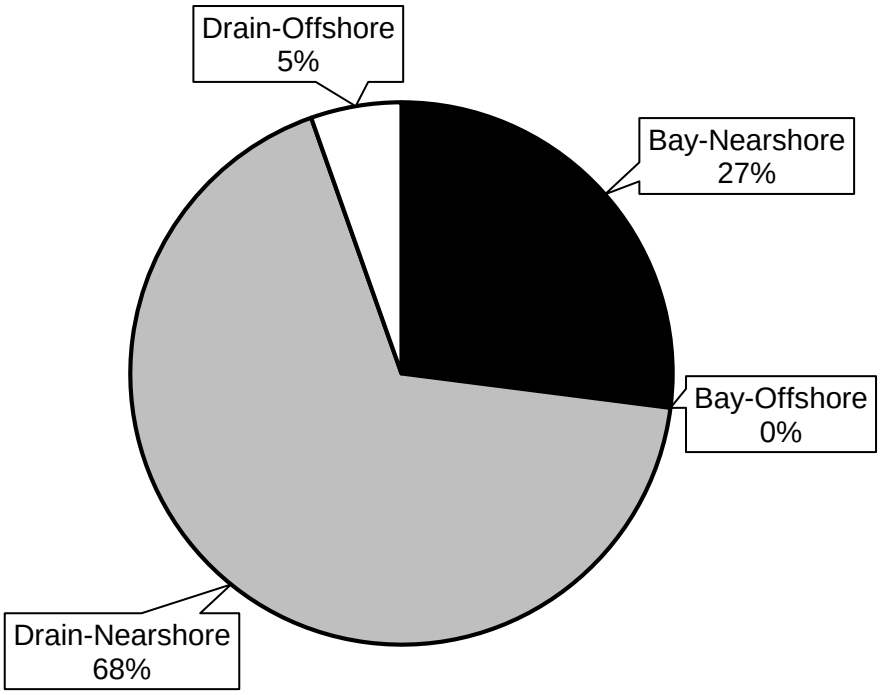


Figure 14. *Proportion of Spotted Gar detected in each habitat type in dip net surveys in 2018.*

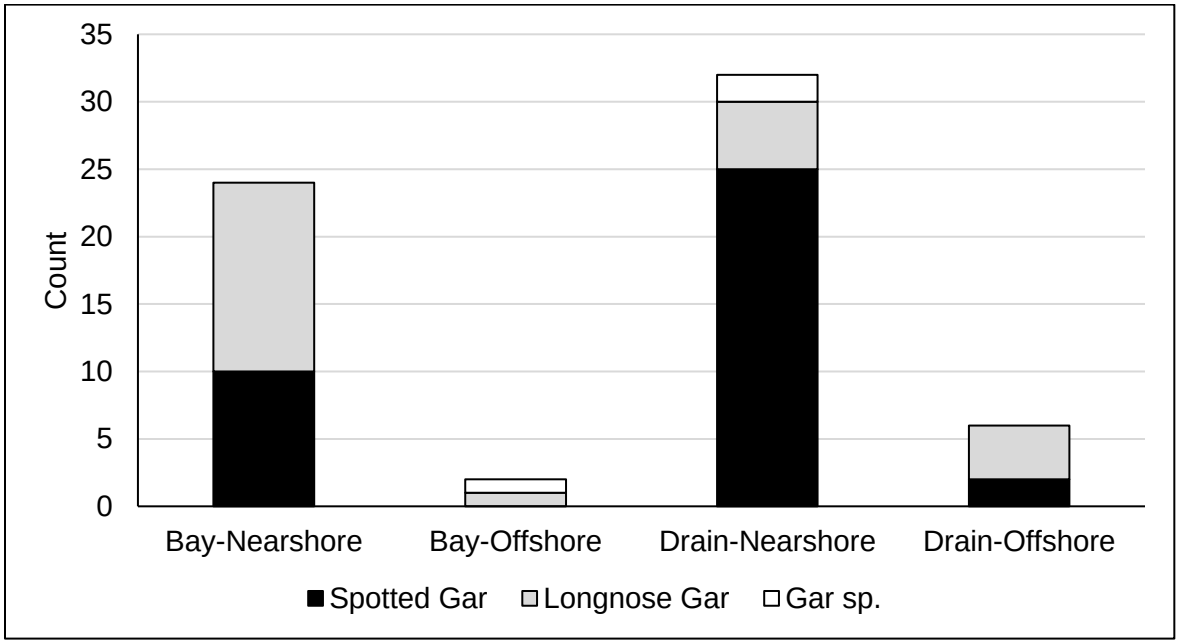


Figure 15. *Total number of larval Gar (Spotted Gar, n=37; Longnose Gar (n=24), and gar specimens not identified to species (n=3)) captured in each habitat type.*

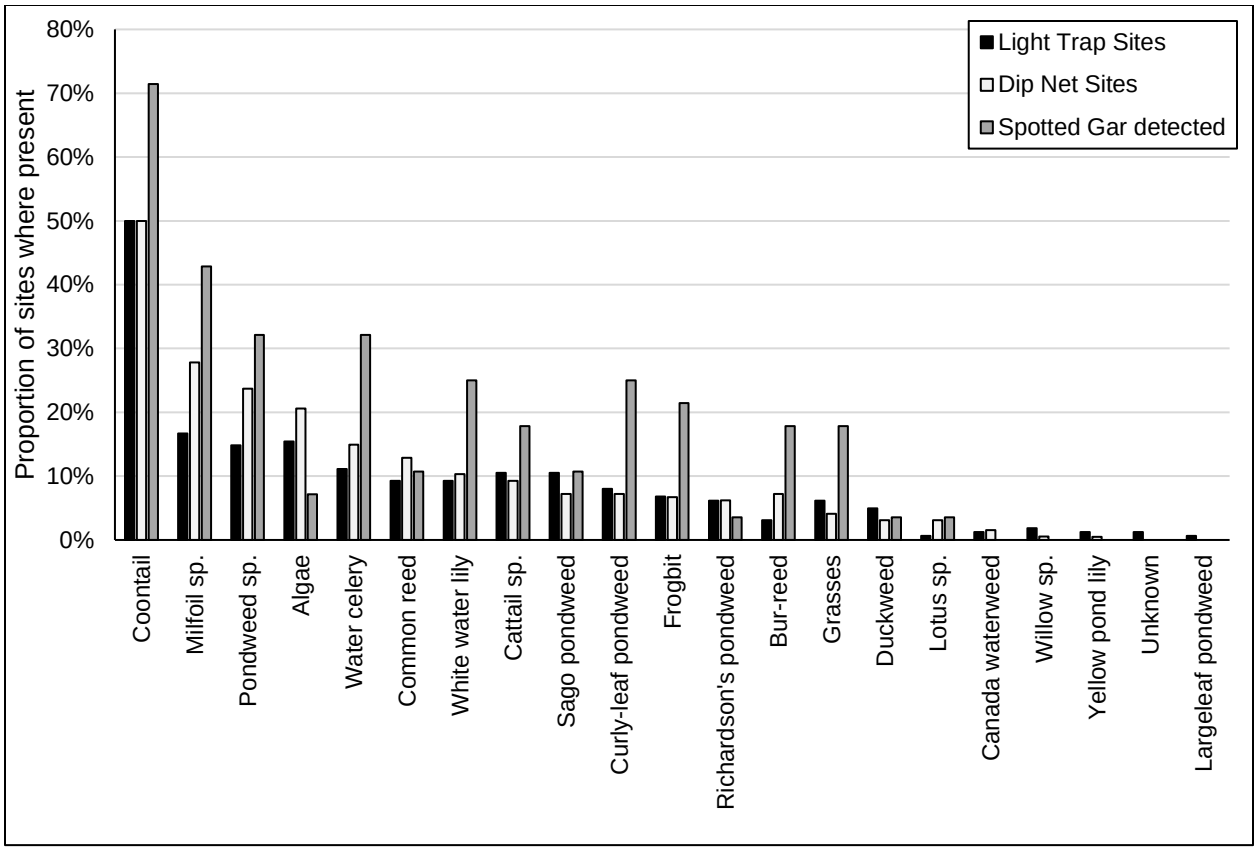


Figure 16. *Proportion of sites at which each aquatic vegetation species were present at sites sampled by light trap (n=162) and by dip net (n=194). Also shown is the proportion of vegetation at sites where larval Spotted Gar were detected (n=28). For example, 71% of sites containing larval Spotted Gar contained Coontail.*

***Appendix A**. Detections of larval fishes captured at each a) dip net site, and b) light trap site based on genetic species identification. Results in this table are presented as detections (1) or non-detections (0).*

a) Dip net sites (Part I. Ameiurus natalis – Lepomis gibbosus*)*

Site code	*Ameiurus natalis*	*Carpiodes cyprinus*	*Cyprinus carpio*	*Dorosoma cepedianum*	*Esox lucius*	*Etheostoma blennioides*	*Etheostoma exile*	*Etheostoma nigrum*	*Fundulus diaphanus*	*Ictiobus bubalus*	*Ictiobus cyprinellus*	*Ictiobus niger*	*Labidesthes sicculus*	Larval fishes	Larval gar sp.	*Lepisosteus oculatus*	*Lepisosteus osseus*	*Lepomis gibbosus*
DN-B-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-04	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-B-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-09	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
DN-B-10	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-B-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
DN-B-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
DN-B-23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
DN-B-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-25	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-B-26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-32	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-B-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0

Site code	*Ameiurus natalis*	*Carpiodes cyprinus*	*Cyprinus carpio*	*Dorosoma cepedianum*	*Esox lucius*	*Etheostoma blennioides*	*Etheostoma exile*	*Etheostoma nigrum*	*Fundulus diaphanus*	*Ictiobus bubalus*	*Ictiobus cyprinellus*	*Ictiobus niger*	*Labidesthes sicculus*	Larval fishes	Larval gar sp.	*Lepisosteus oculatus*	*Lepisosteus osseus*	*Lepomis gibbosus*
DN-B-46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-48	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-B-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
DN-B-51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
DN-B-61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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DN-B-66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-B-67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
DN-B-72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
DN-B-73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
DN-B-74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
DN-B-75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-81	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
DN-B-82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
DN-B-85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-B-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-B-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-001	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
DN-D-002	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
DN-D-003	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

Site code	*Ameiurus natalis*	*Carpiodes cyprinus*	*Cyprinus carpio*	*Dorosoma cepedianum*	*Esox lucius*	*Etheostoma blennioides*	*Etheostoma exile*	*Etheostoma nigrum*	*Fundulus diaphanus*	*Ictiobus bubalus*	*Ictiobus cyprinellus*	*Ictiobus niger*	*Labidesthes sicculus*	Larval fishes	Larval gar sp.	*Lepisosteus oculatus*	*Lepisosteus osseus*	*Lepomis gibbosus*
DN-D-004	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-005	0	1	0	1	0	1	0	0	0	1	1	1	0	0	0	0	0	1
DN-D-006	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0
DN-D-007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-008	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
DN-D-009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-010	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
DN-D-011	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
DN-D-012	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
DN-D-013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-017	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
DN-D-018	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-020	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-023	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-024	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-025	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0
DN-D-026	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
DN-D-027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-028	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
DN-D-030	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-031	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-032	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
DN-D-035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-041	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-050	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-051	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
DN-D-052	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-054	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0

Site code	*Ameiurus natalis*	*Carpiodes cyprinus*	*Cyprinus carpio*	*Dorosoma cepedianum*	*Esox lucius*	*Etheostoma blennioides*	*Etheostoma exile*	*Etheostoma nigrum*	*Fundulus diaphanus*	*Ictiobus bubalus*	*Ictiobus cyprinellus*	*Ictiobus niger*	*Labidesthes sicculus*	Larval fishes	Larval gar sp.	*Lepisosteus oculatus*	*Lepisosteus osseus*	*Lepomis gibbosus*
DN-D-055	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-056	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-057	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
DN-D-058	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-059	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DN-D-060	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
DN-D-061	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
DN-D-062	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-063	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
DN-D-064	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
DN-D-065	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-066	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-067	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-068	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
DN-D-069	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-071	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-072	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-074	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-075	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-076	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
DN-D-077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-079	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-081	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-082	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-084	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-085	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-086	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
DN-D-087	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-088	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-090	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-091	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
DN-D-092	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-093	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-094	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-095	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
DN-D-096	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-097	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
DN-D-098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
DN-D-099	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DN-D-101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Total sites	**0**	**7**	**3**	**6**	**0**	**1**	**0**	**0**	**0**	**33**	**7**	**5**	**0**	**6**	**3**	**28**	**17**	**7**

a) Dip net sites (Part II. Lepomis macrochirus *– total species)*

Site code	*Lepomis macrochirus*	*Lepomis* sp.	*Micropterus salmoides*	*Morone americana*	*Neogobius melanostomus*	*Notemigonus crysoleucas*	*Notropis atherinoides*	*Notropis buchanani*	*Notropis heterodon*	*Notropis hudsonius*	*Notropis* sp.	*Notropis volucellus*	*Perca flavescens*	*Pimephales notatus*	*Pomoxis annularis*	*Pomoxis nigromaculatus*	*Umbra limi*	**Total species**
DN-B-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-04	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**5**
DN-B-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-16	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-17	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-20	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-22	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	**4**
DN-B-23	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**3**
DN-B-24	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-25	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**3**
DN-B-26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-32	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**5**
DN-B-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-39	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-41	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-45	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**5**
DN-B-46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-48	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**3**

Site code	*Lepomis macrochirus*	*Lepomis* sp.	*Micropterus salmoides*	*Morone americana*	*Neogobius melanostomus*	*Notemigonus crysoleucas*	*Notropis atherinoides*	*Notropis buchanani*	*Notropis heterodon*	*Notropis hudsonius*	*Notropis* sp.	*Notropis volucellus*	*Perca flavescens*	*Pimephales notatus*	*Pomoxis annularis*	*Pomoxis nigromaculatus*	*Umbra limi*	Total species
DN-B-49	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
DN-B-50	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**3**
DN-B-51	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	**3**
DN-B-52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-66	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	**5**
DN-B-67	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	**3**
DN-B-68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-69	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-B-75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-B-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-B-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
DN-D-002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-003	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**4**
DN-D-004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-005	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	**11**

Site code	*Lepomis macrochirus*	*Lepomis* sp.	*Micropterus salmoides*	*Morone americana*	*Neogobius melanostomus*	*Notemigonus crysoleucas*	*Notropis atherinoides*	*Notropis buchanani*	*Notropis heterodon*	*Notropis hudsonius*	*Notropis* sp.	*Notropis volucellus*	*Perca flavescens*	*Pimephales notatus*	*Pomoxis annularis*	*Pomoxis nigromaculatus*	*Umbra limi*	Total species
DN-D-006	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**5**
DN-D-007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-008	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**6**
DN-D-009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-010	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-011	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
DN-D-012	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**5**
DN-D-013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-018	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**4**
DN-D-019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-022	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
DN-D-023	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-024	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-025	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
DN-D-026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-028	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-031	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-032	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-041	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-051	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
DN-D-052	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-053	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-054	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**

Site code	*Lepomis macrochirus*	*Lepomis* sp.	*Micropterus salmoides*	*Morone americana*	*Neogobius melanostomus*	*Notemigonus crysoleucas*	*Notropis atherinoides*	*Notropis buchanani*	*Notropis heterodon*	*Notropis hudsonius*	*Notropis* sp.	*Notropis volucellus*	*Perca flavescens*	*Pimephales notatus*	*Pomoxis annularis*	*Pomoxis nigromaculatus*	*Umbra limi*	Total species
DN-D-056	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-057	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**4**
DN-D-058	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-059	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**3**
DN-D-060	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-061	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-062	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-063	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-064	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-065	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-066	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
DN-D-067	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**2**
DN-D-068	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**5**
DN-D-069	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**3**
DN-D-070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-071	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-072	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-074	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-075	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-076	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
DN-D-077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-079	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-081	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-082	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-083	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-084	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-085	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**2**
DN-D-086	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-087	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-088	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-090	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-091	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-092	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-093	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-094	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-095	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-096	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-097	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
DN-D-098	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
DN-D-099	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
DN-D-101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Total sites	**7**	**0**	**1**	**0**	**0**	**47**	**0**	**3**	**0**	**23**	**1**	**1**	**0**	**1**	**0**	**2**	**0**	**99**

b) Light trap sites (Part I. Ameiurus natalis – Lepomis gibbosus*)*

Site code	*Ameiurus natalis*	*Carpiodes cyprinus*	*Cyprinus carpio*	*Dorosoma cepedianum*	*Esox lucius*	*Etheostoma blennioides*	*Etheostoma exile*	*Etheostoma nigrum*	*Fundulus diaphanus*	*Ictiobus bubalus*	*Ictiobus cyprinellus*	*Ictiobus niger*	*Labidesthes sicculus*	Larval fishes	Larval gar	*Lepisosteus oculatus*	*Lepisosteus osseus*	*Lepomis gibbosus*
LT-B-01	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LT-B-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-12	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
LT-B-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-B-15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-16	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
LT-B-17	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-B-18	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
LT-B-19	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-B-20	0	0	1	0	0	0	1	1	0	1	0	0	1	0	0	0	0	1
LT-B-21	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
LT-B-22	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-B-23	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1
LT-B-24	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-B-25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-31	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-B-32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-34	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
LT-B-35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-37	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
LT-B-38	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
LT-B-39	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1
LT-B-40	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LT-B-41	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
LT-B-42	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-B-43	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
LT-B-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-45	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
LT-B-46	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-B-47	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-B-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-50	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0

Site code	*Ameiurus natalis*	*Carpiodes cyprinus*	*Cyprinus carpio*	*Dorosoma cepedianum*	*Esox lucius*	*Etheostoma blennioides*	*Etheostoma exile*	*Etheostoma nigrum*	*Fundulus diaphanus*	*Ictiobus bubalus*	*Ictiobus cyprinellus*	*Ictiobus niger*	*Labidesthes sicculus*	Larval fishes	Larval gar	*Lepisosteus oculatus*	*Lepisosteus osseus*	*Lepomis gibbosus*
LT-B-51	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
LT-B-52	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
LT-B-53	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-B-54	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-B-55	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
LT-B-56	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0
LT-B-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-58	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
LT-B-59	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-60	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
LT-B-61	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-B-62	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
LT-B-63	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
LT-B-64	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LT-B-65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-66	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-69	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
LT-B-70	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
LT-B-71	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
LT-B-72	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1
LT-B-73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-74	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-B-77	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
LT-B-78	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
LT-B-79	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-B-80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-D-01	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-D-02	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-D-03	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-D-04	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-D-05	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-06	0	0	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1
LT-D-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-D-08	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-D-09	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LT-D-11	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1
LT-D-12	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-13	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-14	0	0	1	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1
LT-D-15	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-16	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-17	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
LT-D-18	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-19	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-20	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
LT-D-21	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1

Site code	*Ameiurus natalis*	*Carpiodes cyprinus*	*Cyprinus carpio*	*Dorosoma cepedianum*	*Esox lucius*	*Etheostoma blennioides*	*Etheostoma exile*	*Etheostoma nigrum*	*Fundulus diaphanus*	*Ictiobus bubalus*	*Ictiobus cyprinellus*	*Ictiobus niger*	*Labidesthes sicculus*	Larval fishes	Larval gar	*Lepisosteus oculatus*	*Lepisosteus osseus*	*Lepomis gibbosus*
LT-D-22	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-23	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-24	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-25	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-26	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-D-28	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-29	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LT-D-30	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-31	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-32	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-D-33	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-34	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-35	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-36	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
LT-D-37	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-38	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-D-40	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-41	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-D-42	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-D-43	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-D-44	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
LT-D-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-D-46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT-D-47	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
LT-D-48	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
LT-D-49	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-50	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1
LT-D-51	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-52	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-53	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-54	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-55	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-56	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-57	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
LT-D-58	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
LT-D-59	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-60	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-61	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-62	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-63	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-64	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-65	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-66	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-67	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-68	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-69	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LT-D-70	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-71	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-72	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Site code	*Ameiurus natalis*	*Carpiodes cyprinus*	*Cyprinus carpio*	*Dorosoma cepedianum*	*Esox lucius*	*Etheostoma blennioides*	*Etheostoma exile*	*Etheostoma nigrum*	*Fundulus diaphanus*	*Ictiobus bubalus*	*Ictiobus cyprinellus*	*Ictiobus niger*	*Labidesthes sicculus*	Larval fishes	Larval gar	*Lepisosteus oculatus*	*Lepisosteus osseus*	*Lepomis gibbosus*
LT-D-73	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-74	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-76	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1
LT-D-77	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-80	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-81	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LT-D-82	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	1
Total sites	**1**	**9**	**82**	**52**	**1**	**0**	**11**	**20**	**4**	**46**	**4**	**5**	**4**	**5**	**0**	**0**	**0**	**80**

b) Light trap sites (Part II. Lepomis macrochirus *– total species)*

Site code	*Lepomis macrochirus*	*Lepomis* sp.	*Micropterus salmoides*	*Morone americana*	*Neogobius melanostomus*	*Notemigonus crysoleucas*	*Notropis atherinoides*	*Notropis buchanani*	*Notropis heterodon*	*Notropis hudsonius*	*Notropis* sp.	*Notropis volucellus*	*Perca flavescens*	*Pimephales notatus*	*Pomoxis annularis*	*Pomoxis nigromaculatus*	*Umbra limi*	Total species
LT-B-01	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*****
LT-B-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-09	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
LT-B-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-11	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-13	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	**3**
LT-B-14	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	**5**
LT-B-15	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	**3**
LT-B-16	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**4**
LT-B-17	1	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	**9**
LT-B-18	1	0	0	0	0	1	0	1	0	1	0	0	0	1	0	1	0	**11**
LT-B-19	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	**4**
LT-B-20	1	0	0	0	0	1	0	1	0	1	1	0	0	1	0	0	0	**12**
LT-B-21	1	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	**7**
LT-B-22	1	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	**7**
LT-B-23	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	**8**
LT-B-24	1	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	**8**
LT-B-25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

Site code	*Lepomis macrochirus*	*Lepomis* sp.	*Micropterus salmoides*	*Morone americana*	*Neogobius melanostomus*	*Notemigonus crysoleucas*	*Notropis atherinoides*	*Notropis buchanani*	*Notropis heterodon*	*Notropis hudsonius*	*Notropis* sp.	*Notropis volucellus*	*Perca flavescens*	*Pimephales notatus*	*Pomoxis annularis*	*Pomoxis nigromaculatus*	*Umbra limi*	**Total species**
LT-B-28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-31	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**4**
LT-B-32	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-33	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**2**
LT-B-34	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	**5**
LT-B-35	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
LT-B-36	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
LT-B-37	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	**7**
LT-B-38	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**4**
LT-B-39	1	0	0	0	0	1	0	1	0	1	0	0	1	1	0	0	0	**9**
LT-B-40	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*****
LT-B-41	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	**5**
LT-B-42	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-B-43	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	**6**
LT-B-44	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
LT-B-45	1	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	**8**
LT-B-46	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-B-47	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	**5**
LT-B-48	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**2**
LT-B-49	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-50	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	**6**
LT-B-51	0	0	1	0	0	0	0	1	1	1	0	0	0	1	0	1	0	**8**
LT-B-52	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	**6**
LT-B-53	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	**5**
LT-B-54	1	0	0	0	0	1	0	1	0	1	0	0	0	1	0	1	0	**8**
LT-B-55	1	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	**8**
LT-B-56	0	0	0	0	0	0	0	1	0	1	1	1	0	1	0	0	0	**9**
LT-B-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-59	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-B-60	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	**5**
LT-B-61	0	0	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0	**5**
LT-B-62	1	0	0	0	1	1	0	1	0	0	0	0	0	1	0	0	0	**6**
LT-B-63	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	**6**
LT-B-64	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*****
LT-B-65	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	**3**
LT-B-66	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	**3**
LT-B-67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-69	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	**6**
LT-B-70	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**4**
LT-B-71	1	0	0	0	1	1	0	0	1	0	0	0	0	1	0	0	0	**6**
LT-B-72	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	**7**
LT-B-73	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-B-74	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-B-75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-B-77	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	**6**

Site code	*Lepomis macrochirus*	*Lepomis* sp.	*Micropterus salmoides*	*Morone americana*	*Neogobius melanostomus*	*Notemigonus crysoleucas*	*Notropis atherinoides*	*Notropis buchanani*	*Notropis heterodon*	*Notropis hudsonius*	*Notropis* sp.	*Notropis volucellus*	*Perca flavescens*	*Pimephales notatus*	*Pomoxis annularis*	*Pomoxis nigromaculatus*	*Umbra limi*	**Total species**
LT-B-78	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-B-79	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	**7**
LT-B-80	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
LT-D-01	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-D-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-D-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-05	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	**9**
LT-D-06	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**9**
LT-D-07	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-D-09	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**7**
LT-D-10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*****
LT-D-11	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	**9**
LT-D-12	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**7**
LT-D-13	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**6**
LT-D-14	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**7**
LT-D-15	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**7**
LT-D-16	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**8**
LT-D-17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-20	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**6**
LT-D-21	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**7**
LT-D-22	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**8**
LT-D-23	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**6**
LT-D-24	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-25	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-D-26	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**6**
LT-D-27	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-28	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**5**
LT-D-29	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*****
LT-D-30	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**6**
LT-D-31	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**6**
LT-D-32	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
LT-D-33	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-34	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-D-35	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**5**
LT-D-36	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	**4**
LT-D-37	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**6**
LT-D-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-40	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-D-41	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	**4**
LT-D-42	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	**5**
LT-D-43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**4**
LT-D-44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-D-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**
LT-D-46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
LT-D-47	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	**4**

Site code	*Lepomis macrochirus*	*Lepomis* sp.	*Micropterus salmoides*	*Morone americana*	*Neogobius melanostomus*	*Notemigonus crysoleucas*	*Notropis atherinoides*	*Notropis buchanani*	*Notropis heterodon*	*Notropis hudsonius*	*Notropis* sp.	*Notropis volucellus*	*Perca flavescens*	*Pimephales notatus*	*Pomoxis annularis*	*Pomoxis nigromaculatus*	*Umbra limi*	**Total species**
LT-D-48	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-D-49	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**4**
LT-D-50	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**8**
LT-D-51	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	**8**
LT-D-52	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1	1	**10**
LT-D-53	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	**7**
LT-D-54	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**6**
LT-D-55	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	**8**
LT-D-56	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	**6**
LT-D-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-58	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-D-59	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	**5**
LT-D-60	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-D-61	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	**6**
LT-D-62	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**7**
LT-D-63	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-D-64	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-65	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-66	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-67	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
LT-D-68	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-D-69	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*****
LT-D-70	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**5**
LT-D-71	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**4**
LT-D-72	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-D-73	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
LT-D-74	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**6**
LT-D-75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-76	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**7**
LT-D-77	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	**5**
LT-D-78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
LT-D-80	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**5**
LT-D-81	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	**5**
LT-D-82	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**6**
Total sites	**74**	**10**	**9**	**1**	**14**	**79**	**1**	**24**	**5**	**34**	**3**	**1**	**5**	**37**	**1**	**33**	**6**	**137**

Appendix B. *Mean daily water temperature (°C) calculated from semi-hourly readings from Onset HOBO V2 temperature data loggers. Two temperature loggers were deployed in each Bates-Bloomfield and Mcdougall drains, one near the mouth and one upstream near the first road crossing.*

	Bates-Bloomfield		**Mcdougall**		
Date	**Mouth**	**Upstream**	**Mouth**	**Upstream**	**All**
1-May-18	13.25	13.22	13.73	10.83	**12.76**
2-May-18	14.45	14.79	15.14	12.92	**14.32**
3-May-18	15.45	15.78	15.70	13.49	**15.10**
4-May-18	16.53	16.48	15.30	13.44	**15.44**
5-May-18	16.96	16.58	16.09	12.62	**15.56**
6-May-18	17.87	17.39	16.46	13.42	**16.28**
7-May-18	17.64	16.70	16.04	12.95	**15.83**
8-May-18	18.57	17.37	17.33	13.45	**16.68**
9-May-18	19.10	17.97	17.39	14.18	**17.16**
10-May-18	19.07	18.50	17.67	15.73	**17.74**
11-May-18	16.00	15.76	14.85	12.57	**14.79**
12-May-18	11.17	11.13	10.40	9.51	**10.55**
13-May-18	12.37	11.07	11.03	11.07	**11.39**
14-May-18	14.51	12.90	12.22	11.72	**12.84**
15-May-18	16.04	14.10	14.09	14.24	**14.62**
16-May-18	17.81	14.38	14.30	13.92	**15.10**
17-May-18	19.37	15.73	15.98	15.24	**16.58**
18-May-18	18.11	16.55	16.21	14.48	**16.34**
19-May-18	17.56	15.73	15.73	13.89	**15.73**
20-May-18	17.93	16.36	16.11	15.05	**16.36**
21-May-18	17.70	16.45	16.20	13.87	**16.05**
22-May-18	18.14	16.77	16.61	14.34	**16.46**
23-May-18	18.78	17.82	17.72	15.81	**17.53**
24-May-18	20.78	19.58	19.80	16.90	**19.27**
25-May-18	22.06	21.03	21.11	17.76	**20.49**
26-May-18	22.19	21.59	21.23	18.06	**20.77**
27-May-18	23.42	21.35	21.95	17.65	**21.09**
28-May-18	26.21	22.88	24.57	20.19	**23.46**
29-May-18	27.05	24.52	25.43	21.38	**24.59**
30-May-18	25.66	24.37	25.05	21.22	**24.07**
31-May-18	25.13	24.39	25.24	21.88	**24.16**
1-Jun-18	25.17	24.83	25.16	22.41	**24.39**
2-Jun-18	23.14	22.78	22.88	19.89	**22.17**
3-Jun-18	22.84	21.98	22.28	18.67	**21.44**
4-Jun-18	21.34	20.58	20.54	18.17	**20.16**
5-Jun-18	20.04	19.51	19.62	17.73	**19.22**
6-Jun-18	19.33	18.88	19.22	16.64	**18.52**
7-Jun-18	19.90	18.77	19.86	16.46	**18.75**

	Bates-Bloomfield		Mcdougall		
Date	**Mouth**	**Upstream**	**Mouth**	**Upstream**	**All**
8-Jun-18	21.94	19.93	21.53	17.59	**20.25**
9-Jun-18	21.37	20.77	21.41	18.71	**20.57**
10-Jun-18	19.55	19.44	19.71	17.58	**19.07**
11-Jun-18	19.85	18.70	19.59	17.05	**18.80**
12-Jun-18	21.55	19.90	21.19	17.85	**20.12**
13-Jun-18	23.13	21.80	23.19	18.90	**21.76**
14-Jun-18	22.77	22.25	22.57	19.65	**21.81**
15-Jun-18	23.42	22.56	22.79	19.78	**22.14**
16-Jun-18	23.85	22.56	22.88	19.89	**22.30**
17-Jun-18	25.46	22.81	24.20	20.18	**23.16**
18-Jun-18	26.79	24.65	25.96	22.33	**24.93**
19-Jun-18	26.16	24.92	25.17	22.44	**24.67**
20-Jun-18	24.68	24.08	23.84	21.08	**23.42**
21-Jun-18	24.06	22.82	22.55	19.85	**22.32**
22-Jun-18	21.83	21.76	21.95	19.46	**21.25**
23-Jun-18	22.05	20.53	21.62	18.97	**20.79**
24-Jun-18	23.54	21.59	22.79	19.32	**21.81**
25-Jun-18	22.64	21.30	21.27	18.87	**21.02**
26-Jun-18	22.59	21.13	21.43	18.49	**20.91**
27-Jun-18	22.98	21.81	22.13	19.13	**21.51**
28-Jun-18	24.27	22.28	22.24	20.11	**22.23**
29-Jun-18	26.32	23.25	22.99	20.79	**23.34**
30-Jun-18	27.79	24.57	24.29	22.30	**24.74**