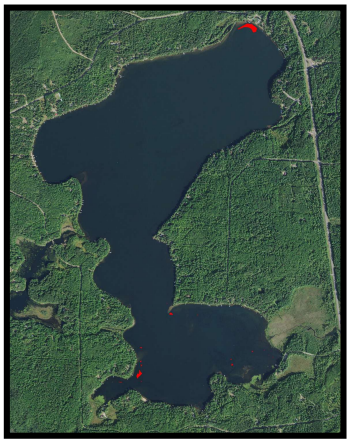
Curly-leaf pondweed (*Potamogeton crispus*) Bed Mapping Survey
Middle Eau Claire Lake – WBIC: 2742100
Bayfield County, Wisconsin

Yellow iris near the Bony Lake Inlet

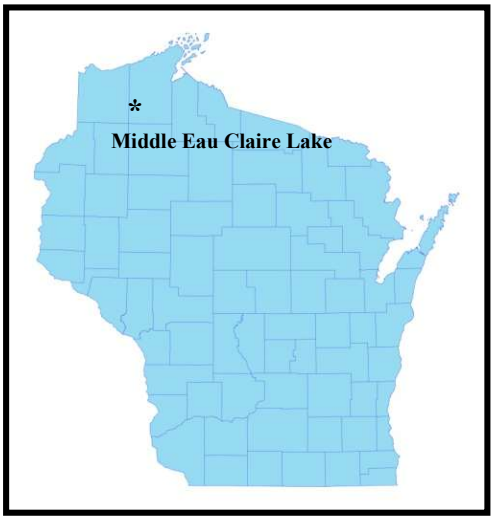
Curly-leaf pondweed raked out near landing - 6/15/25



2025 Middle Eau Claire Lake CLP Beds (red)

Project Initiated by:

The Town of Barnes – Aquatic Invasive Species Committee,
Lake Education and Planning Services, LLC, and the
Wisconsin Department of Natural Resources (Grant ACEI24521)



Dead calm survey conditions at the southeast landing - 6/15/25

Survey Conducted by and Report Prepared by:

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June 15, 2025

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INTRODUCTION:

Middle Eau Claire Lake (WBIC 2742100) is an 880-acre stratified drainage lake located in southwestern Bayfield County, Wisconsin in the Town of Barnes (T44N R9W S7-9 and 16-21). It reaches a maximum depth of 66ft in the hole north/northwest of the Eau Claire River Inlet and has an average depth of approximately 17ft (Figure 1). The lake is mesotrophic bordering on oligotrophic in nature with summer Secchi readings over the last ten years averaging 16.6ft (WDNR 2025). This very good clarity produced a littoral zone that reached approximately 20ft in 2025. The bottom is predominately sand and gravel along the shoreline and around the many sunken islands, while muck dominates the deeper basins and bays (Hopke et al. 1964).

Figure 1: Middle Eau Claire Lake Aerial Photo

BACKGROUND AND STUDY RATIONALE:

In 2005, concern over the spread of Eurasian water-milfoil (*Myriophyllum spicatum*) (EWM) into nearby Tomahawk and Sand Bar Lakes prompted members of the Town of Barnes Aquatic Invasive Species Committee (then the Eurasian water-milfoil Committee) and the Eau Claire Lakes Area Property Owners Association (ECLAPOA) to authorize an initial point-intercept survey to look for exotic plant species in the lakes. This survey did **not** find EWM, Curly-leaf pondweed (*Potamogeton crispus*) (CLP), or any other exotic species in either Upper or Middle Eau Claire Lakes (Kudlas et al. – pers. comm.).

Along with the original 2005 point-intercept survey, the TOB/ECLAPOA initiated a Clean Boats/Clean Waters monitoring program at the lakes' landings, and trained volunteers as shoreline spotters to look for exotic invasive species. These spotters ultimately discovered CLP in Pease Bay on Upper Eau Claire Lake and in the south bays of Middle Eau Claire Lake during the summer of 2012. In an effort to determine how to deal with the newly found infestation, the TOB applied for and received a rapid response grant that authorized three plant surveys on each lake in 2013: May CLP point-intercept surveys, June CLP bed mapping surveys with a SCUBA habitat assessment, and late July warm-water point-intercept macrophyte surveys.

As these surveys found only small amounts of CLP that were generally minor components within expansive beds of beneficial habitat-forming native vegetation, it was decided to limit control of CLP to manual removal by volunteers. However, when a follow-up CLP bed mapping survey in 2015 found expanding numbers of small beds on both lakes, it was determined that suction harvesting using the "Barnes Aquatic Invasive Species Sucker" or BAISS would be employed to increase capacity. BAISS harvesting continued from 2015-2022 with occasional CLP bed mapping surveys used to guide harvesting and assess the efficacy of the program. Following the uptick in acreage we documented in 2021, we were again asked to conduct bed mapping surveys to assess the effectiveness of early-season BAISS removal and to look for new areas with CLP in 2022, 2023, 2024, and 2025. This report is the summary analysis of our June 15, 2025 survey.

METHODS:

Curly-leaf Pondweed Bed Mapping Survey:

During the bed mapping survey, we searched the lake's visible littoral zone. By definition, a "bed" was determined to be any area where we visually estimated that CLP made up >50% of the area's plants, was generally continuous with clearly defined borders, and was canopied, or close enough to being canopied that it would likely interfere with boat traffic. After we located a bed, we motored around the perimeter of the area taking GPS coordinates at regular intervals. We also estimated the rake density range and mean rake fullness of the bed (Figure 2), the maximum depth of the bed, whether it was canopied, and the impact it was likely to have on navigation (**none** – easily avoidable with a natural channel around or narrow enough to motor through/**minor** – one prop clear to get through or access open water/**moderate** – several prop clears needed to navigate through/**severe** – multiple prop clears and difficult to impossible to row through). These data were then mapped using ArcMap 9.3.1, and we used the WDNR's Forestry Tools Extension to determine the acreage of each bed to the nearest hundredth of an acre (Tables 1 and 2).

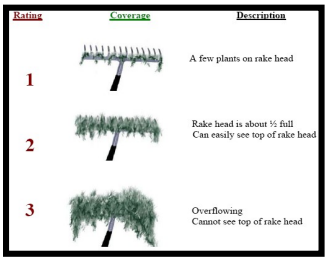

Figure 2: Rake Fullness Ratings (UWEX 2010)

RESULTS:

Summary of Past Curly-leaf Pondweed Bed Mapping Surveys:

During our original 2013 survey, despite searching over 21km (13.1 miles) of transects throughout the lake's visible littoral zone, the only beds found were in the southern third of the lake (Figure 3) (Appendix I). Even in this area, Curly-leaf pondweed was very limited in distribution as the 14 mapped beds totaled just 0.11 acre (0.01% of the lake's 880 acres). The biggest was 0.03 acre (Beds 1 and 11) and the smallest was little more than a few 10's of plants covering <0.001 acre (Bed 12) (Table 1).

The 2015 survey documented a general uptick in CLP distribution and density on Middle Eau Claire Lake. In total, we located 41 microbeds covering 0.53 acre (0.06% of the lake's surface area) (Figure 3). Most of these "beds" were again nothing more than a few clusters of plants, but, as the goal of the suction harvest program was to reduce the species as much as possible, we marked every single CLP plant we found and drew a polygon around it. Because of this, the "real" acreage of CLP beds on the lake was likely significantly less than the stated total. The largest true beds were Bed 7 (0.11 acre) and Bed N (0.05 acre). All other mapped areas were <0.04 acre, and most marked areas covered <0.001 acre and consisted of a few 10's of plants.

Although we revisited all 14 beds found in 2013, eight of them did not appear to have any CLP in 2015 (Table 1). Of the six beds that still had CLP present, only Bed 1 where SCUBA divers from Grantsburg High School had removed large numbers of plants in 2014 showed a decrease in size. In total, the beds in these areas had increase from 0.11 acre to 0.20 acre. Despite this, only the beds that occurred directly out from the boat landing (Beds 11 and 13) could have been considered even a minor navigation impairment, and, in reality, they were easily avoided because of their overall small size.

The 35 new "beds" in 2015 added 0.33 acre for a total delineated acreage of 0.53 acre (Table 2). Twenty-two of them were <0.005 acre meaning they were little more than a few clusters with a handful of plants in each. Perhaps the most noteworthy part of the survey was that we found two beds (A and B) that were north of the "neck" suggesting CLP had broken out of the southern bays (Figure 4).

In 2020, we searched along 27.6km (16.6 miles) of transects, and this included revisiting all former CLP areas. Despite this, we had difficulty finding any CLP to map. Although we delineated 12 areas with CLP totaling 0.07 acre (<0.01% lake coverage), almost all of these "beds" had less than 10-20 plants in them, and none of them were bigger than 0.01 acre (Figure 3). We also didn't locate any plants outside the southern bays (Figure 4). Collectively, this represented a 0.46-acre decline (-86.79%) compared to 2015.

Of the original 14 beds found in 2013, only Beds 7 and 13 had any visible CLP in them in 2020. In each case, we saw just a few handfuls of plants, and the total acreage with any plants present was 0.02 acre (Table 1).

We also found surviving CLP in just three out of the 35 beds first delineated in 2015. Each was little more than a handful of plants, but we marked them as there wasn't anything else present to map. The seven new "beds" found in 2020 were little more than a few scattered plants growing among beds of native pondweeds (Table 2).

The 2021 Curly-leaf pondweed point-intercept and bed mapping surveys covered 42.0km (26.1 miles) of transects. Collectively, we mapped 17 areas totaling 0.58 acre (0.07% of the lake's surface area). Although this was a sharp increase (+728.57%) over 2020 levels, it was almost identical to the acreage we mapped in 2015.

The original beds found in the southern bays during the 2013 survey continued to have almost no CLP present (Figure 3). In total, our 2021 survey noted less than 50 plants in three areas (Beds 7, 11, and 13) that covered <0.01 acre (Table 1).

Similarly, the majority of beds delineated in 2015 and 2020 had no remaining CLP. Only nine of the 35 new areas mapped in 2015 had any plants, and only Beds J and R covered more than 0.01 acre. Even here, CLP was patchy and never an impairment to navigation. Of the seven beds first documented in 2020, Bed NN was the lone area where we still found CLP growing in 2021 (Table 2).

Although beds in 2021 continued to be widely-scattered and plants within the beds generally occurred at low-densities, we again discovered evidence of CLP's continued expansion. Along the southeastern shoreline midlake, we again rake removed a few individual plants from Bed A. We also documented a collection of microbeds (Bed TT) near the Bony Lake Inlet that covered 0.08 acre (Figure 4).

Despite the late ice out in 2022, we were informed that the BAISS team intended to start harvesting on Upper Eau Claire on May 31st and move to Middle Eau Claire Lake thereafter (B. Clements – pers. comm). This meant that our survey would again serve as a postharvest assessment that would be used to guide management in 2023. Because of the late start to the growing season, we waited until the end of June to complete our survey to give CLP the maximum amount of time to grow and top out.

On June 28-29th, 2022, we located just three beds covering 0.06 acre (<0.01% of the lake's surface area). This was a decline of 0.52 acre compared to 2021 (-89.66%) and nearly identical to the 2020 totals. Two of these (Beds 10 and 11) occurred directly west of the boat landing (Figure 3) in areas where we originally found CLP in 2013 (Table 1). Each was canopied and potentially could have been considered a minor impairment although they were so small (combined acreage of 0.02 acre) that they were easily avoided. Despite again revisiting all former beds, the only other evidence we saw of CLP outside the immediate landing was a new bed on the southeast point of the "neck". This loose cluster of plants was growing in the same area we found CLP during the 2021 point-intercept survey. Elsewhere, despite sample raking throughout the worst areas on the flat north of Hole-in-the-Wall Bay and in the new bed delineated near the Bony Lake Inlet in 2021 (Bed TT), we found no other evidence of CLP in 2022 (Figure 4) (Table 2).

Ice out in 2023 was again late, but, following a rapid warm-up, lake temperatures shot into the 60's in only a few weeks. Presumably because of this, we found Curly-leaf pondweed on most lakes was stunted in growth, and we noted plants were falling over and dying earlier than usual on several other lakes we work on further south. Because of this, we decided to survey earlier than we had in 2022. On June 20, 2023, we searched 27.1km (16.8 miles) of transects throughout the lake's visible littoral zone paying careful attention to all areas that were previously found to have CLP. Despite having optimum survey conditions, we found CLP was almost undetectable. Ultimately, we located and rake removed just **a few handfuls of plants** scattered across five previously mapped areas. Near the boat landing, a few scattered plants were removed from the area formerly covered by Bed 11 (Figure 3). They were the only plants seen in areas where we originally found CLP in 2013 (Table 1). The only other evidence of CLP we saw in the southern bays was a single plant raked out between the areas formerly covered by Beds CC and QQ.

On the southeast point of the "neck" in the area formerly covered by Bed UU, test raking produced a single sickly plant. As we searched along the rest of the eastern shoreline, we found and removed an additional plant in the area formerly covered by Bed A (Figure 4) (Table 2). We also found and removed a handful of plants near the Bony Lake Inlet (Bed TT). Because of these low numbers, the BAISS boat decided to skip Middle Eau Claire Lake in 2023.

The winter of 2023-24 was one of the shortest and warmest on record with little snowfall and late ice-on/early ice-off. This was followed by a prolonged cool spring that appeared to favor Curly-leaf pondweed growth as we found record levels and densities on the majority of lakes we surveyed. Because of this, we expected to see a significant uptick on Middle Eau Claire Lake as well.

We ultimately delineated 11 beds covering 0.90 acre. Of these, two occurred in areas where we originally found CLP in 2013 and totaled 0.02 acre (Table 1). Both were near the east boat landing in the main navigation channel, but neither was likely to cause more than a minor impairment due to their small size and patchy nature. We also found seven other microbeds (all <0.07 acre) scattered around the south bays – two others in the east landing bay and five in or near the entrance to Hole-in-the-Wall Bay (Figure 6) (Table 2).

Elsewhere, on the southeast point of the "neck", we found Bed UU had reformed on the outer edge of the drop off. Similarly, we found Bed TT near the Bony Lake Inlet had also reformed and expanded (Figure 7) (Appendix I). Along the north shoreline, we were disappointed to find several clusters of Yellow iris (*Iris pseudacorus*) (see 2024 report cover), and immediately notified the TOB and residents on the lake to find people to remove them. Although the BAISS boat spent a few days on the lake in 2024, they only found eight bags to remove (C. Neff – pers. comm.).

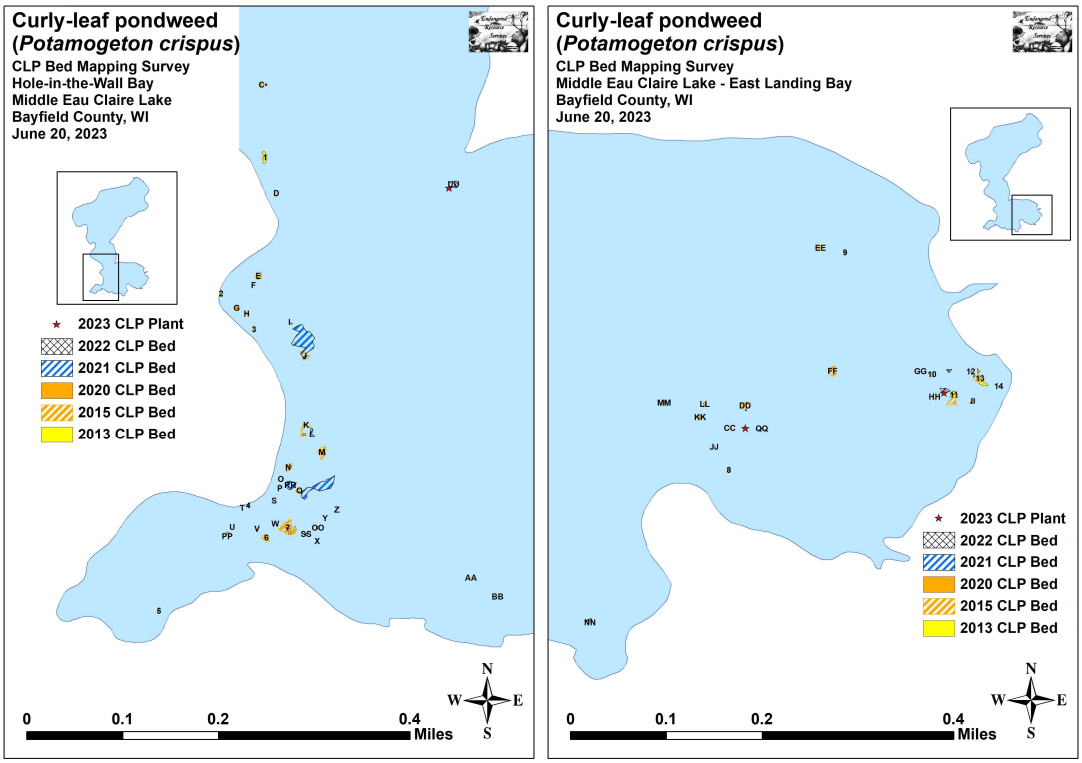

Figure 3: Middle Eau Claire Lake Curly-leaf Pondweed Beds – Hole-in-the-Wall/Boat Landing Bays – 2013, 2015, and 2020-2023

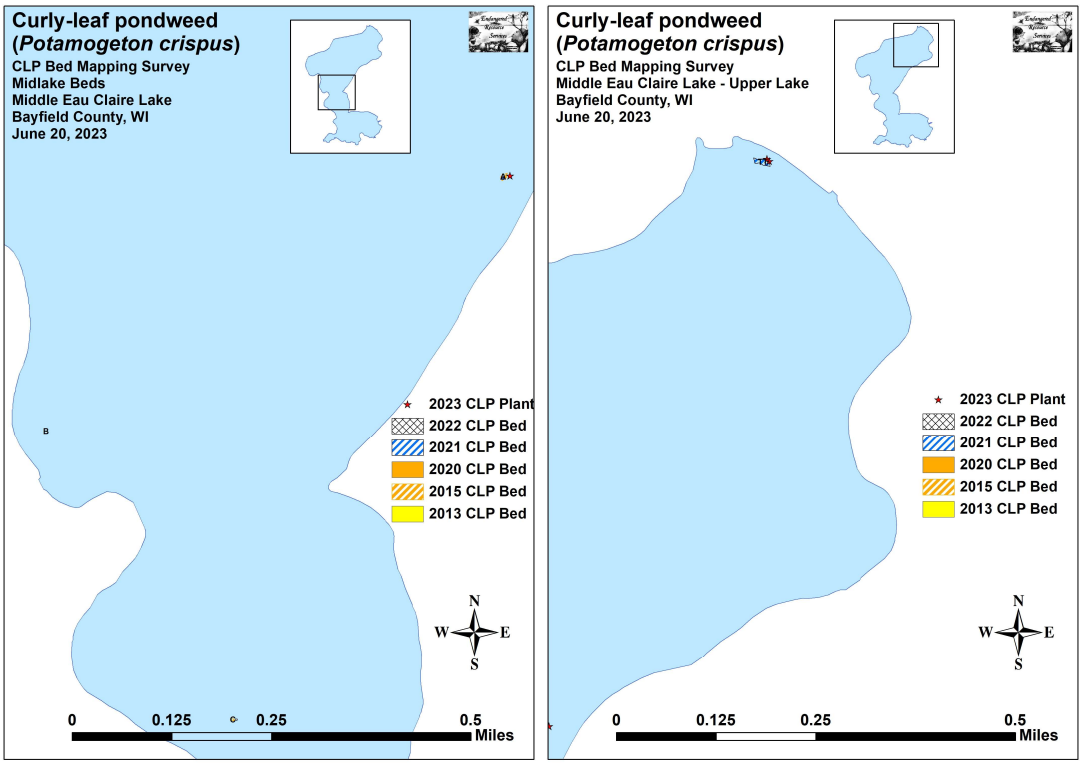

Figure 4: Middle Eau Claire Lake Curly-leaf Pondweed Beds – Midlake and Upper Lake – 2013, 2015, and 2020-2023

Summary of 2025 Curly-leaf Pondweed Bed Mapping Survey:

Another winter with relatively little snowfall and late ice-on/early ice-off again appeared to give Curly-leaf pondweed favorable growing conditions. On June 15, 2025, we searched 28.3km (17.6 miles) of transects again paying careful attention to all areas that were previously found to have CLP (Figure 5). We had partly cloudy skies and dead calm winds. This, coupled with better clarity than we can ever remember on the lake, allowed us to see down over 12ft into the water column.

Collectively, the 2025 survey found 22 beds on 1.75 acres (0.20% of the lake's surface area). This was an 0.85-acre increase **(+94.44%)** compared to the 11 beds covering 0.90 acre we found in 2024. Of these, two occurred in areas where we originally found CLP in 2013 and totaled 0.01 acre (Table 1). Both were near the east boat landing in the main navigation channel, but neither was likely to cause more than a minor impairment due to their small size and patchy nature. We also found 14 other microbeds (all <0.34 acre) scattered around the south bays – seven others in the east landing bay, one in the south-central bay, and six in or near the entrance to Hole-in-the-Wall Bay (Figure 6) (Table 2).

Elsewhere, on the southeast point of the "neck", we found Bed UU had expanded slightly on the outer edge of the drop off, and another small bed (WW) was present just to the north of UU. On the west side of the neck, two microbeds (C and CB) were little more than a few handfuls of plants each of which we rake removed. Similarly, we found and rake removed a handful of plants in Bed A on the southeast shoreline of the upper lake. Near the Bony Lake Inlet, Bed TT was again the worst area on the lake (Figure 7) (Appendix I). Along the north shoreline, we again found a few clusters of Yellow iris. We spoke to the landowner about removing them, and they informed us they had been in contact with Andrew Teal and were working to dig them out.

Table 1: Summary of Curly-leaf Pondweed Beds First Identified in 2013
Middle Eau Claire Lake – Bayfield County, Wisconsin
June 30, 2013, June 16, 18, 2015, June 19, 2020, June 18-19, 2021, June 28-29, 2022, June 20, 2023, June 15, 2024, and June 15, 2025

Bed Number	2025 Acreage	2024 Acreage	2023 Acreage	2022 Acreage	2021 Acreage	2020 Acreage	2015 Acreage	2013 Acreage	Depth Range and Mean Depth	Range and Mean Rake Fullness	Navigation Impairment	2025 Field Notes
1	0	0	0	0	0	0	0.01	0.03	-	-	None	No CLP plants seen.
2	0	0	0	0	0	0	0	0.01	-	-	None	No CLP plants seen.
3	0	0	0	0	0	0	<<0.01	<<0.01	-	-	None	No CLP plants seen.
4	0	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
5	0	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
6	0	0	0	0	0	0	0.02	0.01	-	-	None	No CLP plants seen.
7	0	0	0	0	<0.01	0.01	0.11	<0.01	-	-	None	No CLP plants seen.
8	0	0	0	0	0	0	0	0.01	-	-	None	No CLP plants seen.
9	0	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
10	<0.01	0.01	0	<0.01	0	0	0	0.01	4-5; 4	<<<1-2; <1	None	Scattered in nav. chan.
11	<0.01	0.01	0	0.02	<0.01	0	0.03	0.03	4-5; 4	<<<1-2; <1	None	Scattered in nav. chan.
12	0	0	0	0	0	0	0	<<<0.01	-	-	None	No CLP plants seen.
13	0	0	0	0	<0.01	<0.01	0.04	0.02	-	-	None	No CLP plants seen.
14	0	0	0	0	0	0	0	<<<0.01	-	-	None	No CLP plants seen.
Total Acres	**0.01**	**0.02**	**0.00**	**0.02**	**<0.01**	**0.02**	**0.20**	**0.11**				

Table 2: Summary of Curly-leaf Pondweed Beds First Identified in 2015 and 2020-2025
Middle Eau Claire Lake – Bayfield County, Wisconsin
June 16, 18, 2015, June 19, 2020, June 18-19, 2021, June 28-29, 2022, June 20, 2023, June 15, 2024, and June 15, 2025

Bed Number	2025 Acreage	2024 Acreage	2023 Acreage	2022 Acreage	2021 Acreage	2020 Acreage	2015 Acreage	Depth Range and Mean Depth	Range and Mean Rake Fullness	Navigation Impairment	2025 Field Notes
A	<0.01	0	0	0	<0.01	0	0.03	8-9; 9	<<<1-1; 1	None	All rake removed.
B	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
C/CB	<0.01	0	0	0	<0.01	0	<0.01	8-9; 9	1-3; 2	None	Subcanopy microbeds.
D	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
E	0	0	0	0	<0.01	0	0.02	-	-	None	No CLP plants seen.
F	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
G	0	0	0	0	0	0	<0.01	-	-	None	No CLP plants seen.
H	0	0	0	0	0	0	0.01	-	-	None	No CLP plants seen.
I		0	0	0	<0.01	0	<<0.01	-	-	None	No CLP plants seen.
J	0.03	0.01	0	0	0.27	0	0.03	7-10; 8	<<<1-3; 1	Minor	Canopied open bed.
K	0	0	0	0	0	<<0.01	0.03	-	-	None	No CLP plants seen.
L/LB	0.04	0	0	0	0.01	0	<<0.01	3-9; 8	<<<1-3; 1	Minor	**2nd Worst area on lake.**
M	0	0	0	0	0	<<0.01	0.05	-	-	None	No CLP plants seen.
N	0	0	0	0	0	<<0.01	0.03	-	-	None	No CLP plants seen.
O	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
P	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
Q	0	0	0	0	0	0	0.01	-	-	None	No CLP plants seen.
R	0	0	0	0	0.16	0	<<0.01	-	-	None	No CLP plants seen.
S	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
T	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
U	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
V	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
W	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
X	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
Y	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
Z	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.

Table 2 (continued): Summary of Curly-leaf Pondweed Beds First Identified in 2015 and 2020-2025
Middle Eau Claire Lake – Bayfield County, Wisconsin
June 16, 18, 2015, June 19, 2020, June 18-19, 2021, June 28-29, 2022, June 20, 2023, June 15, 2024, and June 15, 2025

Bed Number	2025 Acreage	2024 Acreage	2023 Acreage	2022 Acreage	2021 Acreage	2020 Acreage	2015 Acreage	Depth Range and Mean Depth	Range and Mean Rake Fullness	Navigation Impairment	2025 Field Notes
AA	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
BB	0	0	0	0	0	0	<<0.01	-	-	None	No CLP plants seen.
CC	0.04	0.03	0	0	0	0	<0.01	5-7; 6	<<<1-2; <1	None	Mixed with natives.
DD	0.01	0	0	0	<0.01	0	0.03	8-9; 9	<<<1-1; <<<1	None	Mixed with natives.
EE	0	0	0	0	0	0	0.16	-	-	None	No CLP plants seen.
FF/FFA	0.02	0	0	0	0	0	0.04	5-6; 5	<<<1-2; <1	None	Scattered plants.
GG	0.01	0	0	0	0	0	<<0.01	5-6; 5	<1-1; <1	None	Scattered plants.
HH	<0.01	0	0	0	0	0	0.01	5-6; 5	<<<1-1; <<<1	None	All raked out.
II	0	0	0	0	<0.01	0	0.01	-	-	None	No CLP plants seen.
JJ	0	0	0	0	0	<<0.01	0	-	-	None	No CLP plants seen.
KK	0	0	0	0	0	<0.01	0	-	-	None	No CLP plants seen.
LL	0	0	0	0	0	<<0.01	0	-	-	None	No CLP plants seen.
MM	0	0	0	0	0	<<0.01	0	-	-	None	No CLP plants seen.
NN	<0.01	0.03	0	0	<0.01	<<0.01	0	4-5; 5	<<<1-2; <<1	None	Scattered single plants.
OO	0.01	0.04	0	0	0	<<0.01	0	6-10; 8	<<<1-2; 1	None	Regular low density.
PP	0.02	0.01	0	0	0	<<0.01	0	4-6; 5	<<<1-1; 1	Minor	Reg. plants in nav. chan.
QQ	0	0	0	0	<0.01	0	0	-	-	None	No CLP plants seen.
RR	0.34	0.07	0	0	0.04	0	0	7-9; 8	<<<1-3; 1	None	Subcanopy patches.
SS	0	0	0	0	<0.01	0	0	-	-	None	No CLP plants seen.
TT	1.13	0.63	0	0	0.08	0	0	4-10; 8	<<<1-3; 2	Minor	**Worst area on lake.**
UU	0.08	0.06	0	0.04	0	0	0	4-10; 8	1-3; 2	Minor	Too small to be mod.
VV	0	0.03	0	0	0	0	0	-	-	None	No CLP plants seen.
WW	0.01	0	0	0	0	0	0	8-11; 9	<<<1-2; 1	None	Microbed on drop-off.
XX	<0.01	0	0	0	0	0	0	7-8; 7	<<<1-1; <<<1	None	Mixed with natives.
Total Acres	**1.74**	**0.88**	**0.00**	**0.04**	**0.58**	**0.05**	**0.33**				

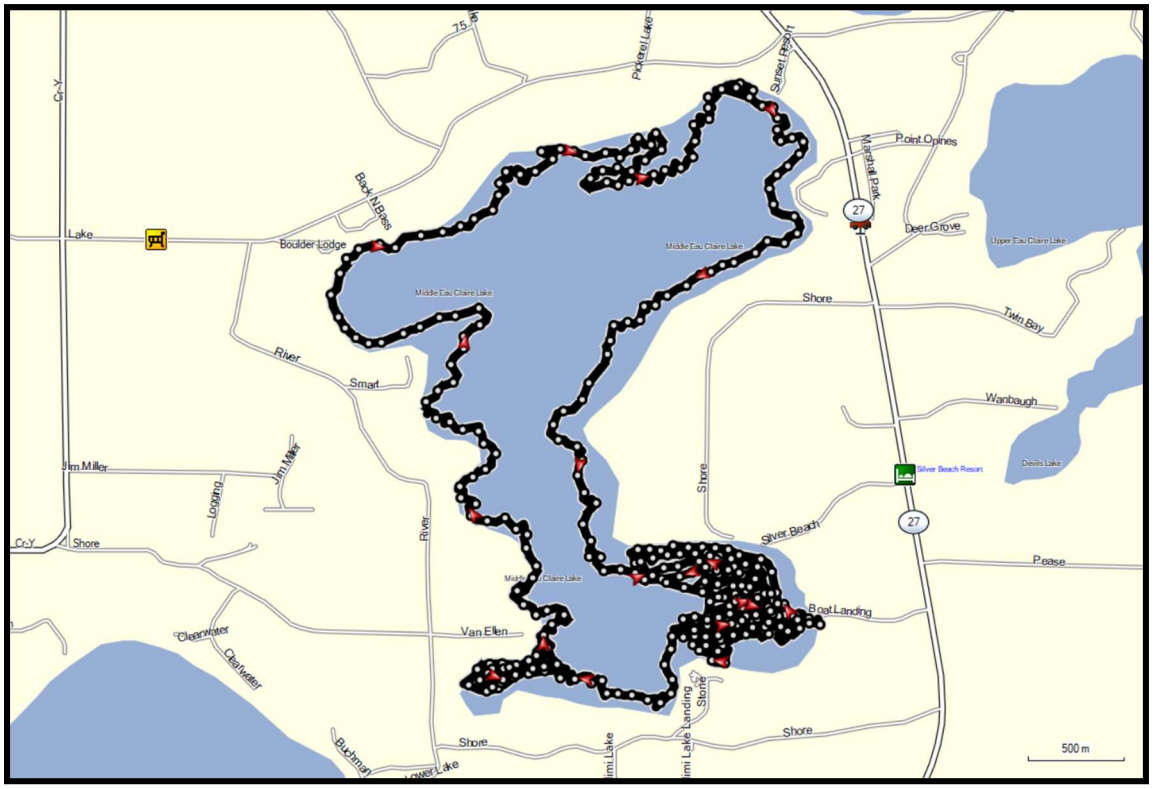

Figure 5: June 15, 2025 Littoral Zone CLP Survey Transects

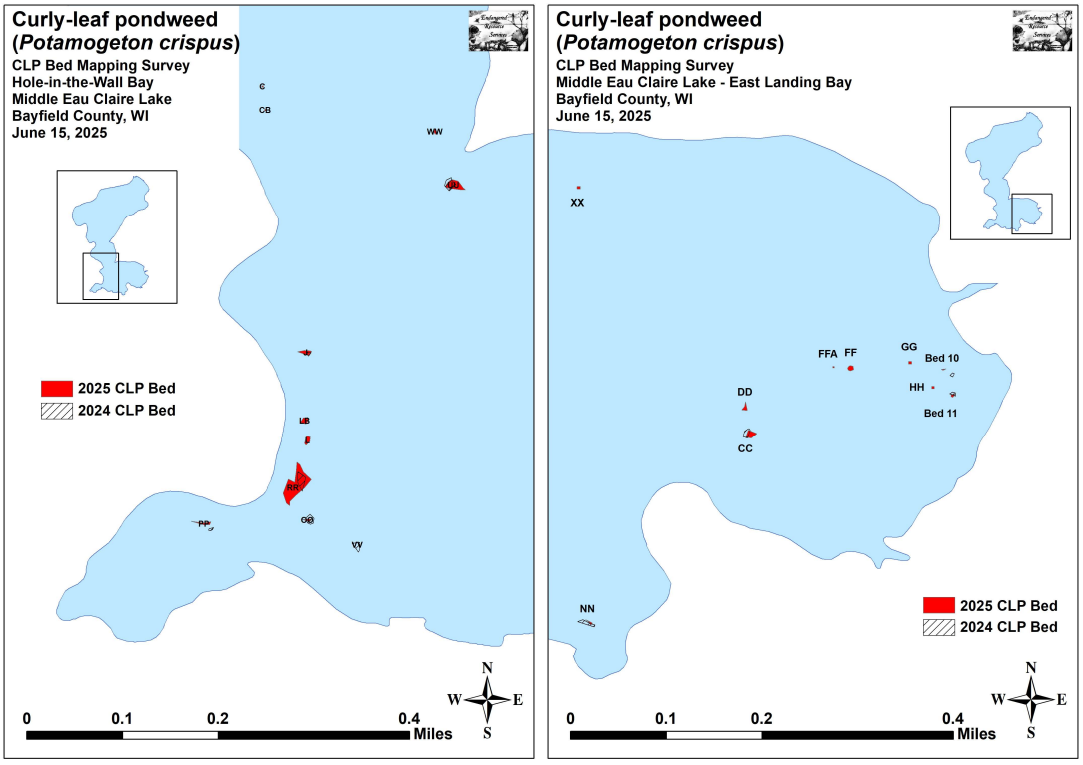

Figure 6: Middle Eau Claire Lake Curly-leaf Pondweed Beds – Hole-in-the-Wall/Boat Landing Bays – 2024 and 2025

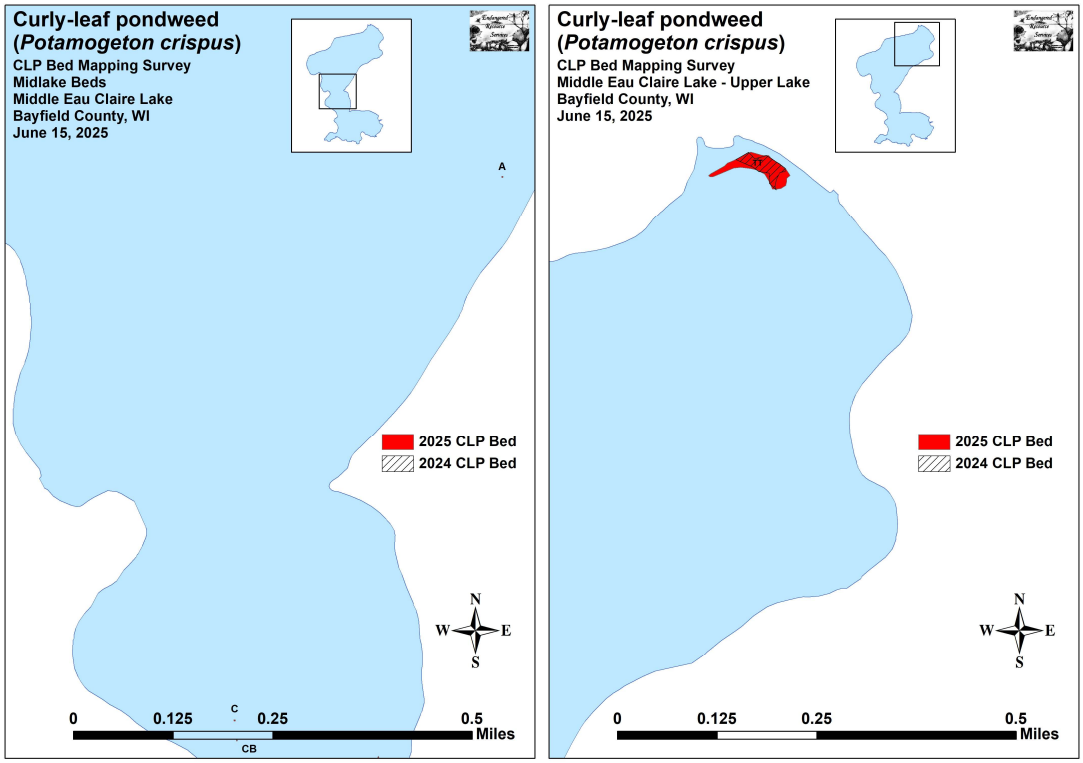

Figure 7: Middle Eau Claire Lake Curly-leaf Pondweed Beds – Midlake and Upper Lake – 2024 and 2025

DISCUSSION AND CONSIDERATIONS FOR MANAGEMENT:

Curly-leaf Pondweed Management:

Curly-leaf pondweed continues to play only a minor role in the Middle Eau Claire Lake ecosystem, and, even when present, it is seldom dense enough to cause even minor navigation impairment. Currently, the "BAISS" harvesting program appears to be keeping the CLP population in check while simultaneously having minimal impact on the lake's rich and diverse native plant community. As long as running the harvester remains a viable management option, it will likely continue to be the most environmentally friendly method of controlling CLP.

If suction harvesting is discontinued in the future or if it isn't possible to get to all of the CLP beds in the time available and the TOB considers chemical control, we strongly encourage a measured approach that is closely evaluated. CLP is an opportunistic species that can rapidly exploit disturbed areas. As herbicides eliminate native vegetation as well as the target species, it is possible that CLP could rapidly reestablish in the treatment areas and ultimately become worse rather than better in the years following treatment – an outcome we have seen in many other systems over the years.

Regardless of what, if any, future active management occurs on the lake, we remind lakeshore residents that they can help minimize CLP's opportunities to spread by maintaining the lake's native plants. To accomplish this, residents should refrain from removing rooted plants from the lake unless absolutely necessary as these barren patches of substrate not only release nutrients into the water column, but they also give CLP a place to establish where it has a competitive advantage. Avoiding motor start-ups in water <5ft deep would also help limit CLP's spread by not clipping or uprooting vegetation. This would also work to keep nutrients out of the water column as the lake's soft sediments are easily stirred up by prop wash.

Yellow Iris Management:

The presence of Yellow iris near and in the Bony Lake Inlet is troubling as there are currently no biological control agents for this species. Because iris can spread rapidly, we STRONGLY encourage residents to look for and eliminate plants on their property before a minor problem becomes a significant one. Iris plants and pods should be bagged to prevent seed dispersal and then disposed of well away from the lake or any other wetland. June is the best month to look for this species as the bright yellow fleur-de-lis are most common at this time of year (see photo on the front cover of this report).

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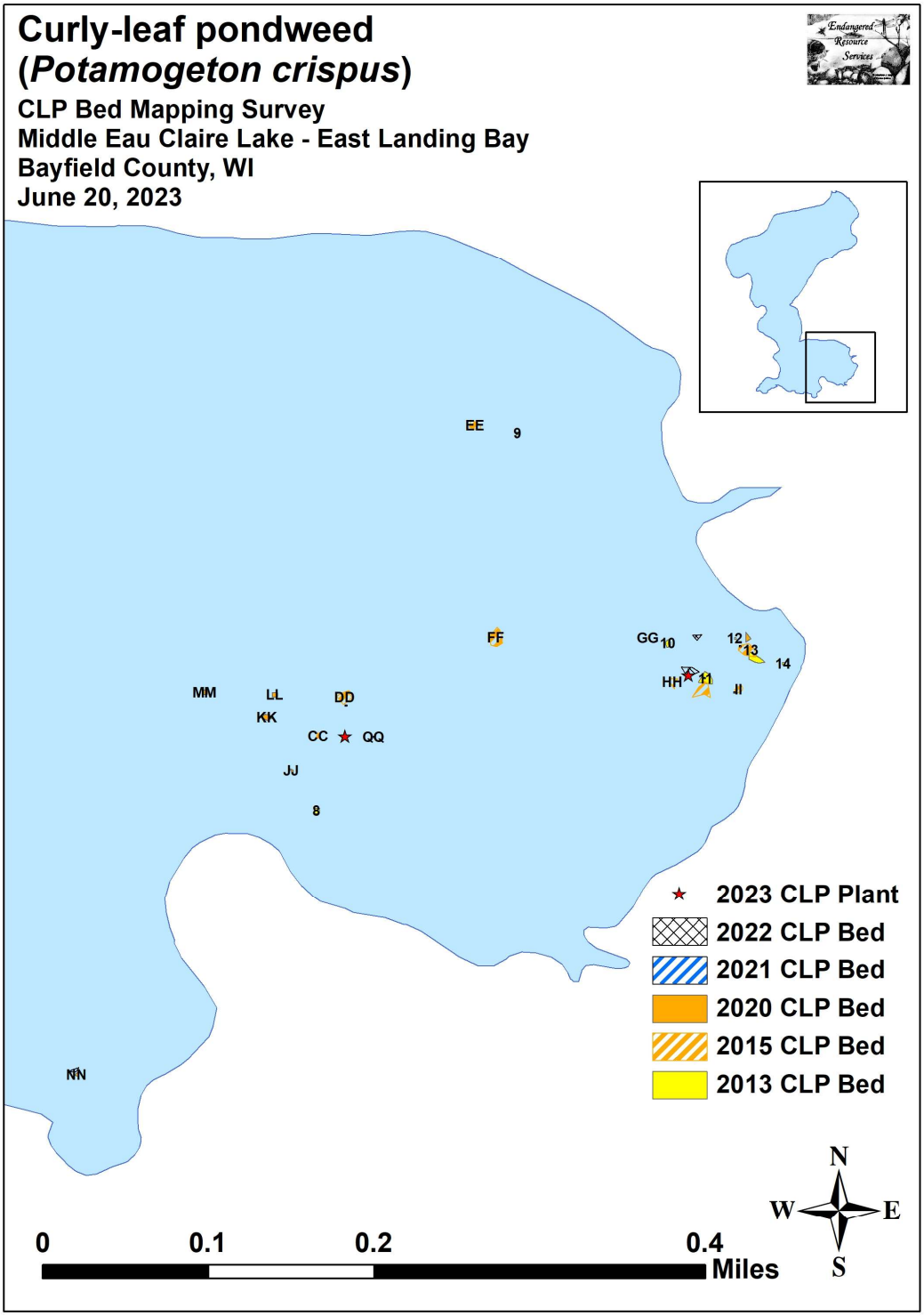
Appendix I: 2013, 2015, 2020-2025 June Curly-leaf Pondweed Bed Maps


Curly-leaf pondweed
(Potamogeton crispus)
CLP Bed Mapping Survey
Middle Eau Claire Lake - East Landing Bay
Bayfield County, WI
June 20, 2023
Endangered Resource Services
EE
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FF
GG
10
12
13
14
HH
11
JI
MM
LL
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JJ
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NN
2023 CLP Plant
2022 CLP Bed
2021 CLP Bed
2020 CLP Bed
2015 CLP Bed
2013 CLP Bed
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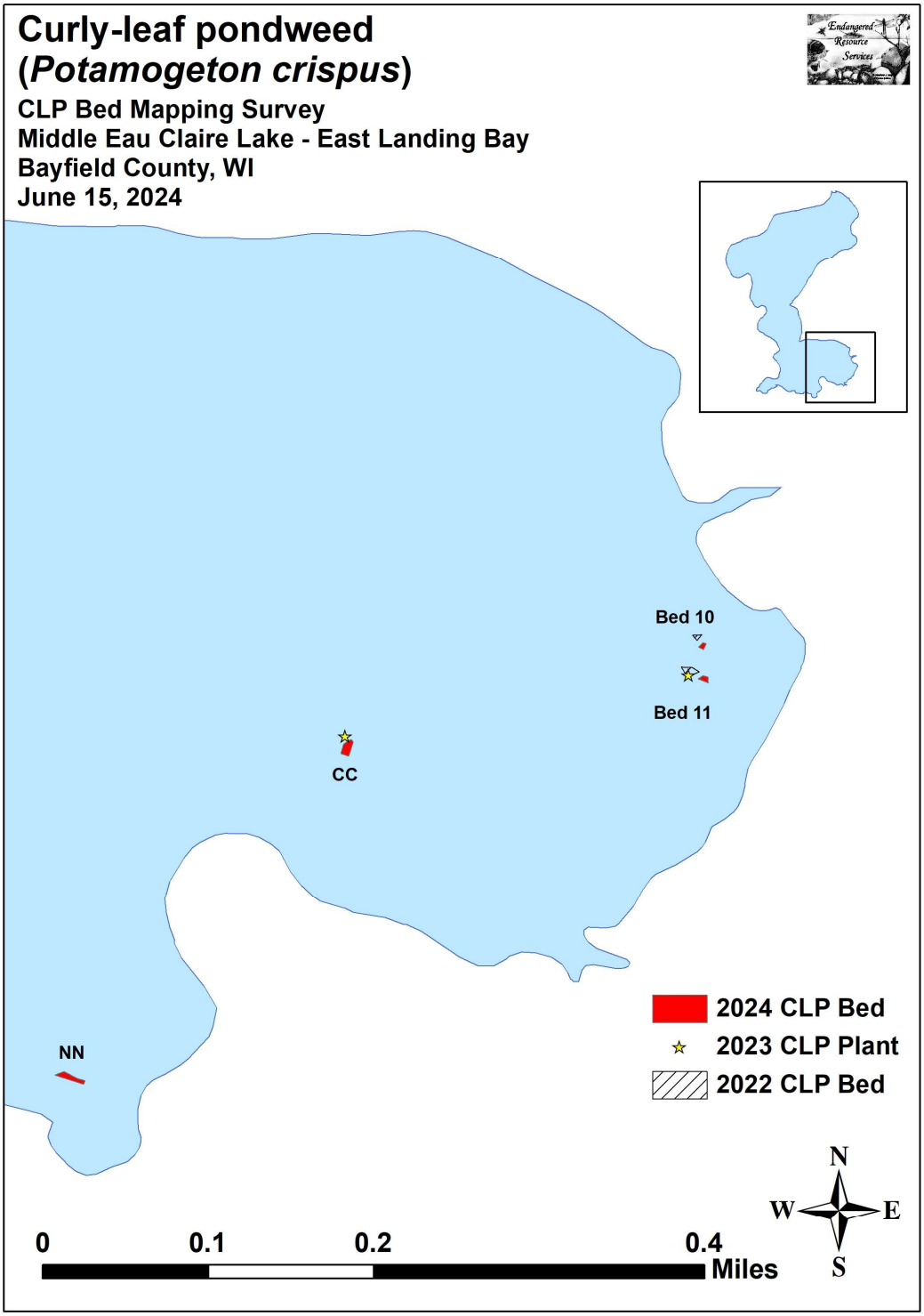
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CLP Bed Mapping Survey
Middle Eau Claire Lake - East Landing Bay
Bayfield County, WI
June 15, 2024
Endangered Resource Services
Bed 10
Bed 11
CC
NN
2024 CLP Bed
2023 CLP Plant
2022 CLP Bed
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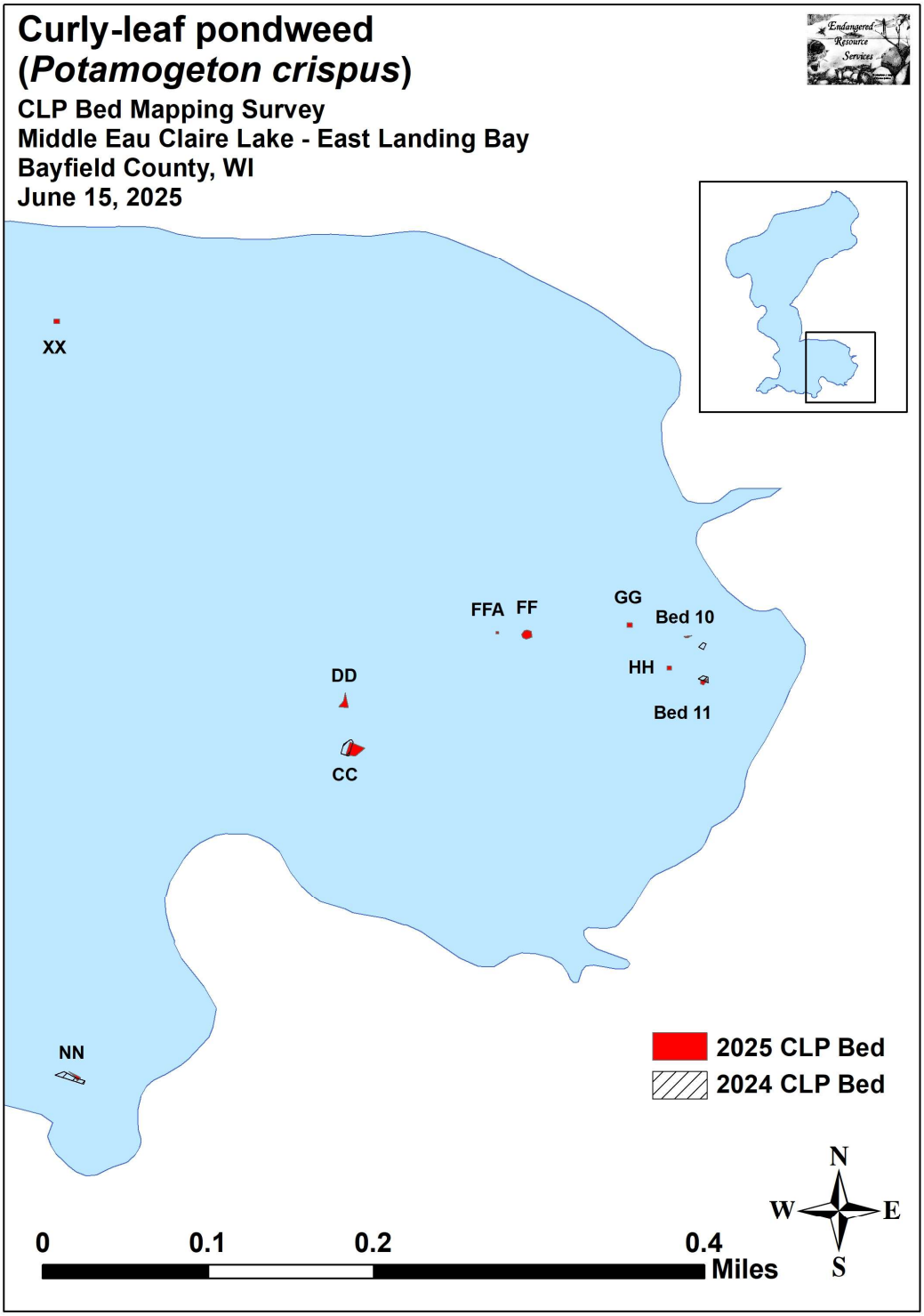
Miles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(Potamogeton crispus)
CLP Bed Mapping Survey
Middle Eau Claire Lake - East Landing Bay
Bayfield County, WI
June 15, 2025
Endangered Resource Services
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Bed 10
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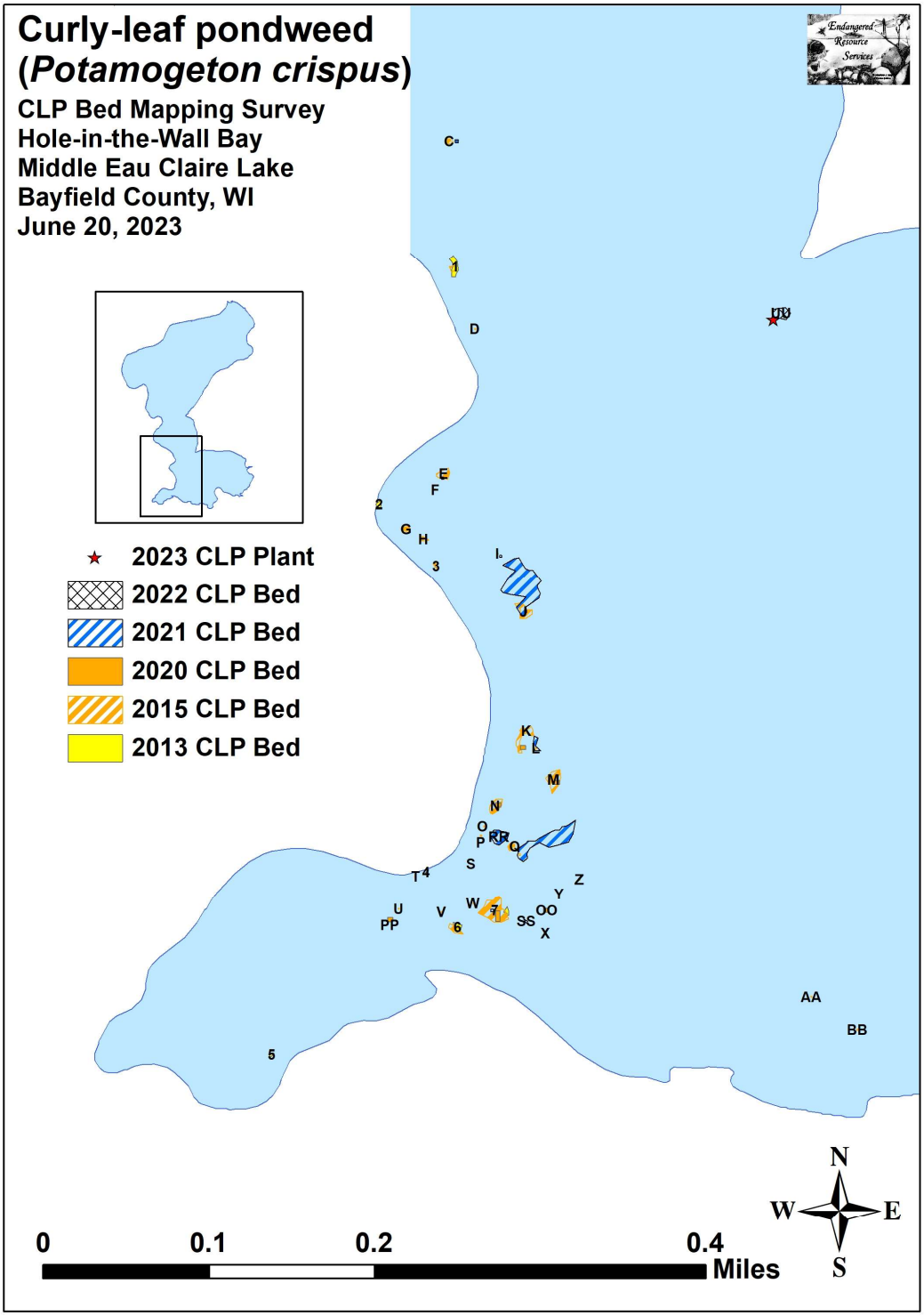
Curly-leaf pondweed
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CLP Bed Mapping Survey
Hole-in-the-Wall Bay
Middle Eau Claire Lake
Bayfield County, WI
June 20, 2023
Endangered Resource Services
2023 CLP Plant
2022 CLP Bed
2021 CLP Bed
2020 CLP Bed
2015 CLP Bed
2013 CLP Bed
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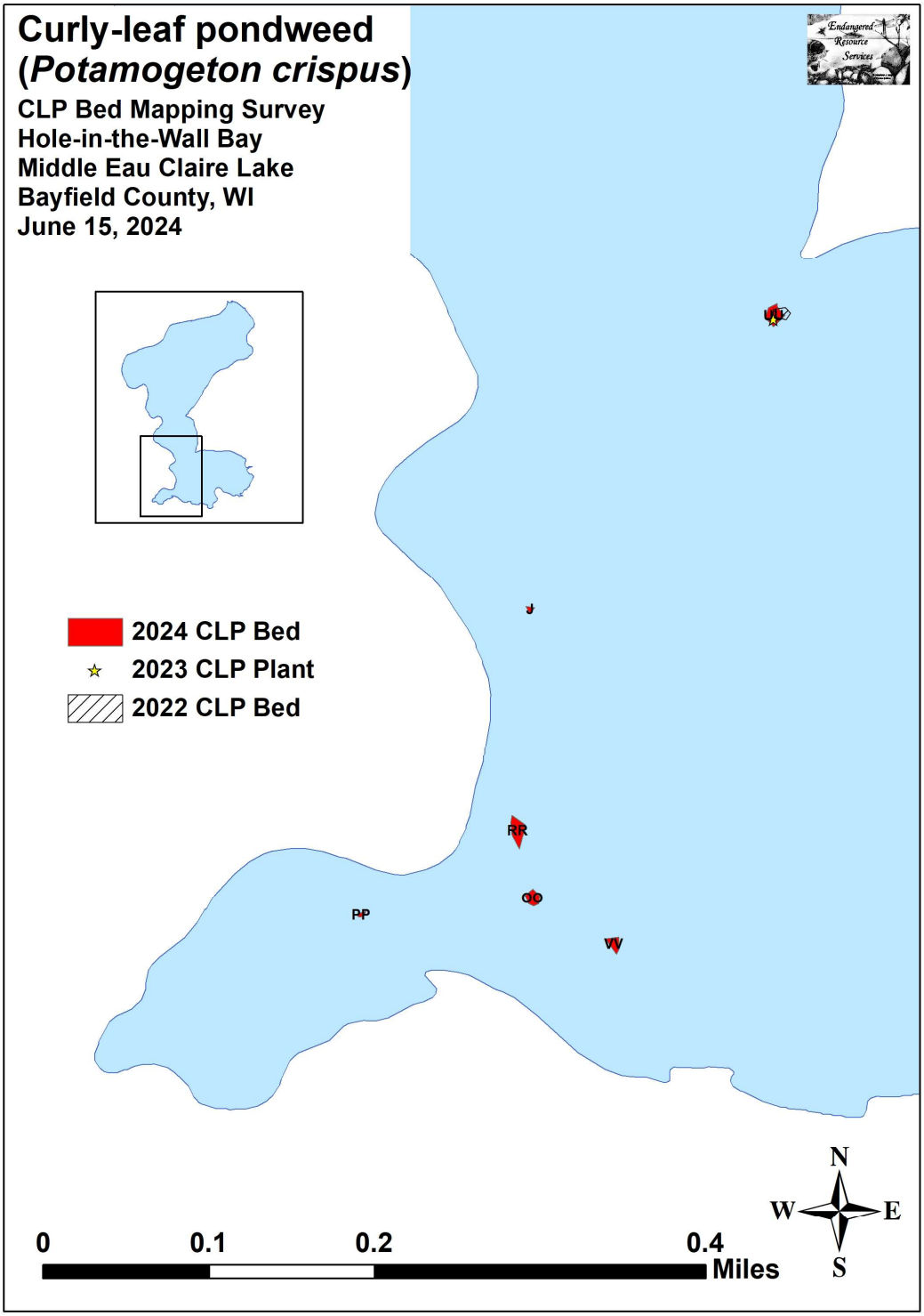
Curly-leaf pondweed
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CLP Bed Mapping Survey
Hole-in-the-Wall Bay
Middle Eau Claire Lake
Bayfield County, WI
June 15, 2024
Endangered Resource Services
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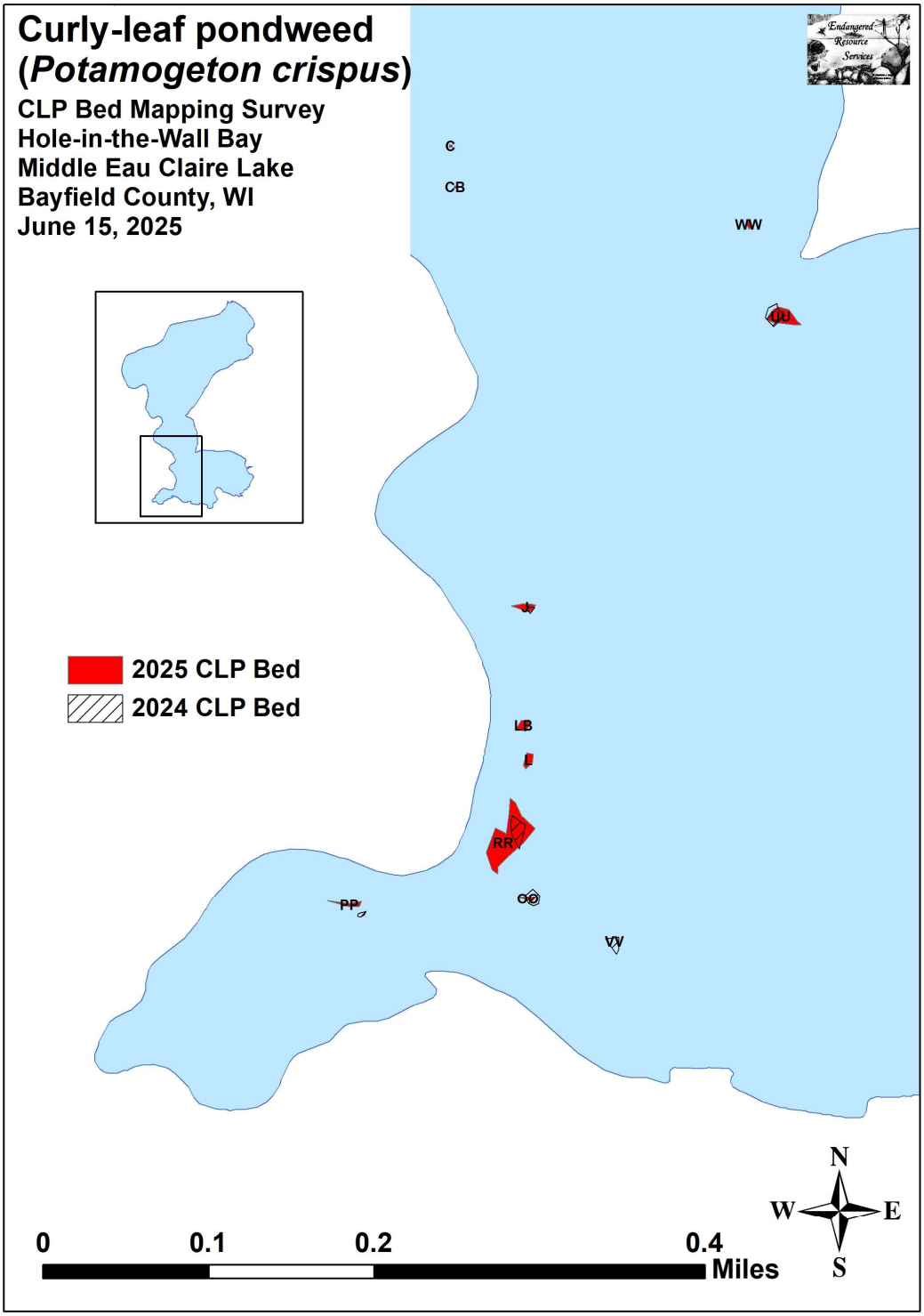
Curly-leaf pondweed
(Potamogeton crispus)
CLP Bed Mapping Survey
Hole-in-the-Wall Bay
Middle Eau Claire Lake
Bayfield County, WI
June 15, 2025
Endangered Resource Services
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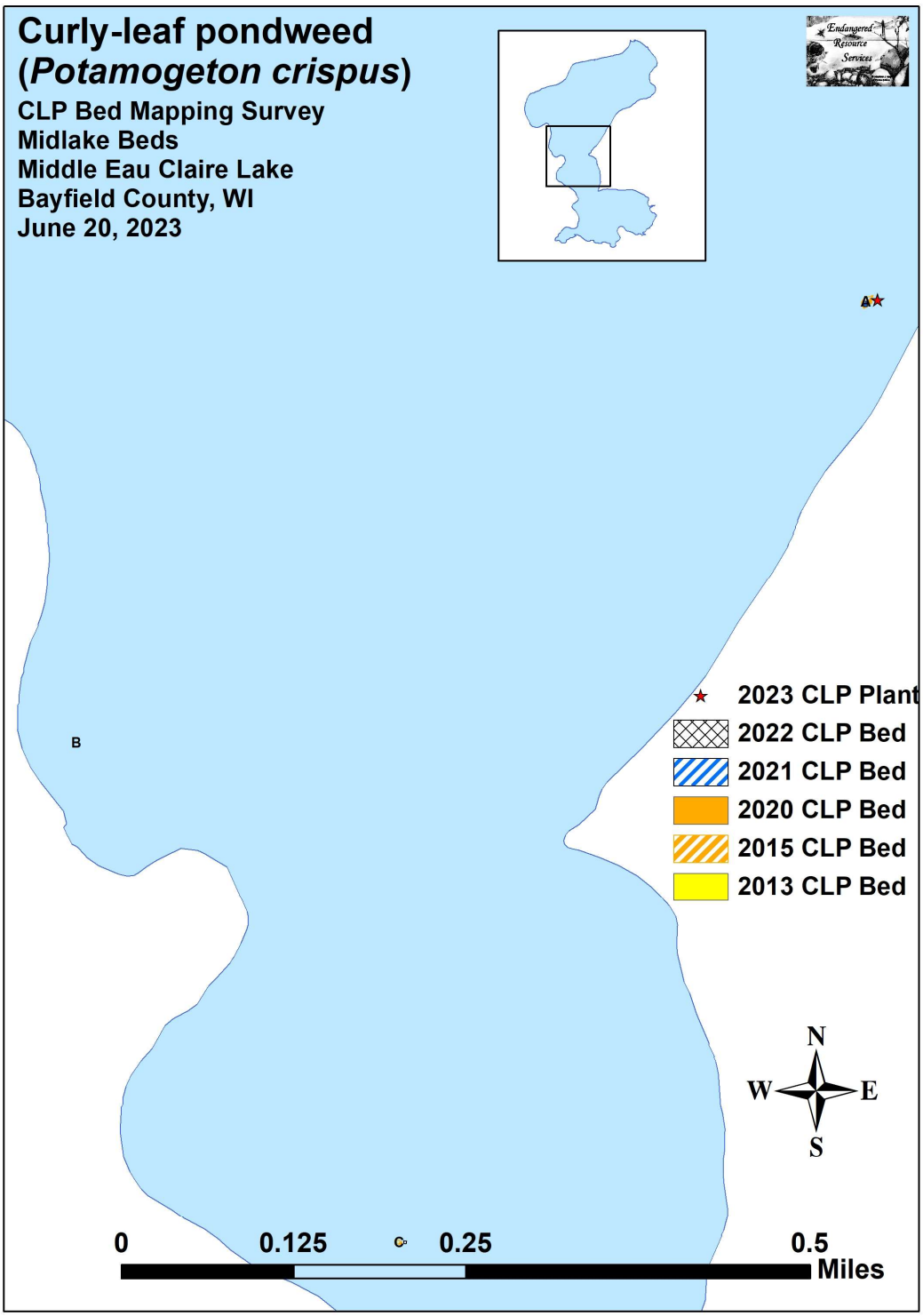
Curly-leaf pondweed
(Potamogeton crispus)
CLP Bed Mapping Survey
Midlake Beds
Middle Eau Claire Lake
Bayfield County, WI
June 20, 2023
Endangered Resource Services
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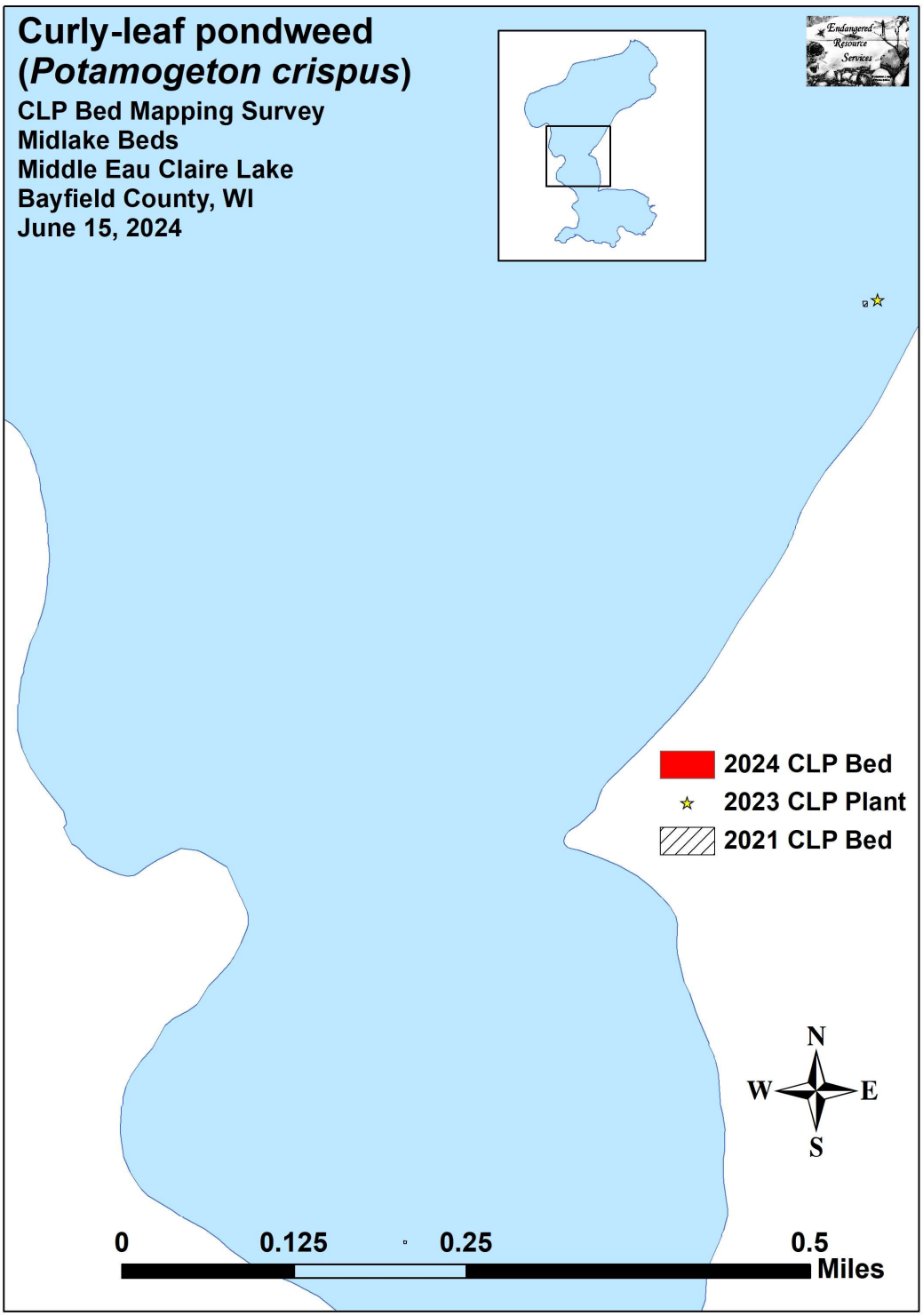
Curly-leaf pondweed
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CLP Bed Mapping Survey
Midlake Beds
Middle Eau Claire Lake
Bayfield County, WI
June 15, 2024
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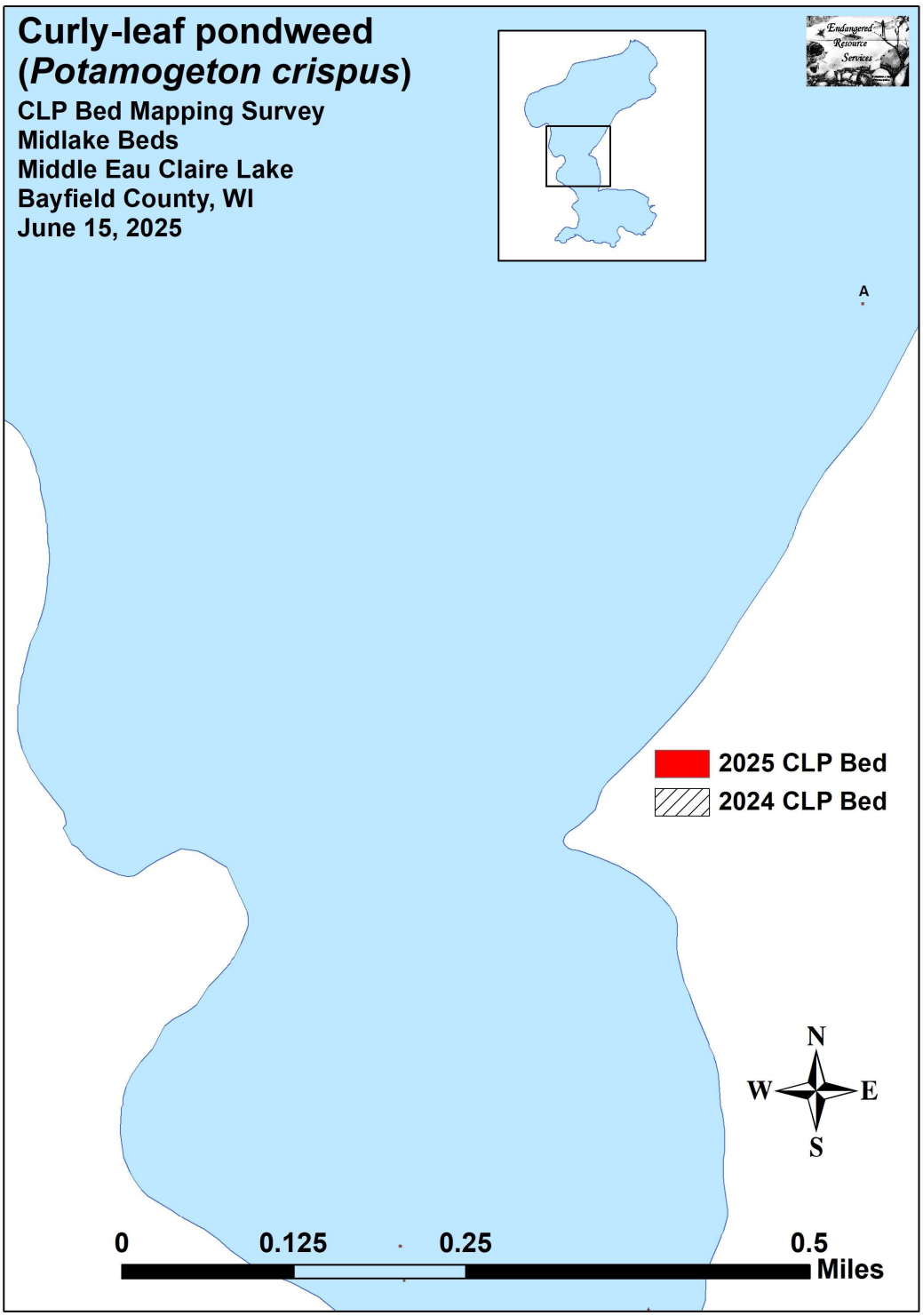
Curly-leaf pondweed
(Potamogeton crispus)
CLP Bed Mapping Survey
Midlake Beds
Middle Eau Claire Lake
Bayfield County, WI
June 15, 2025
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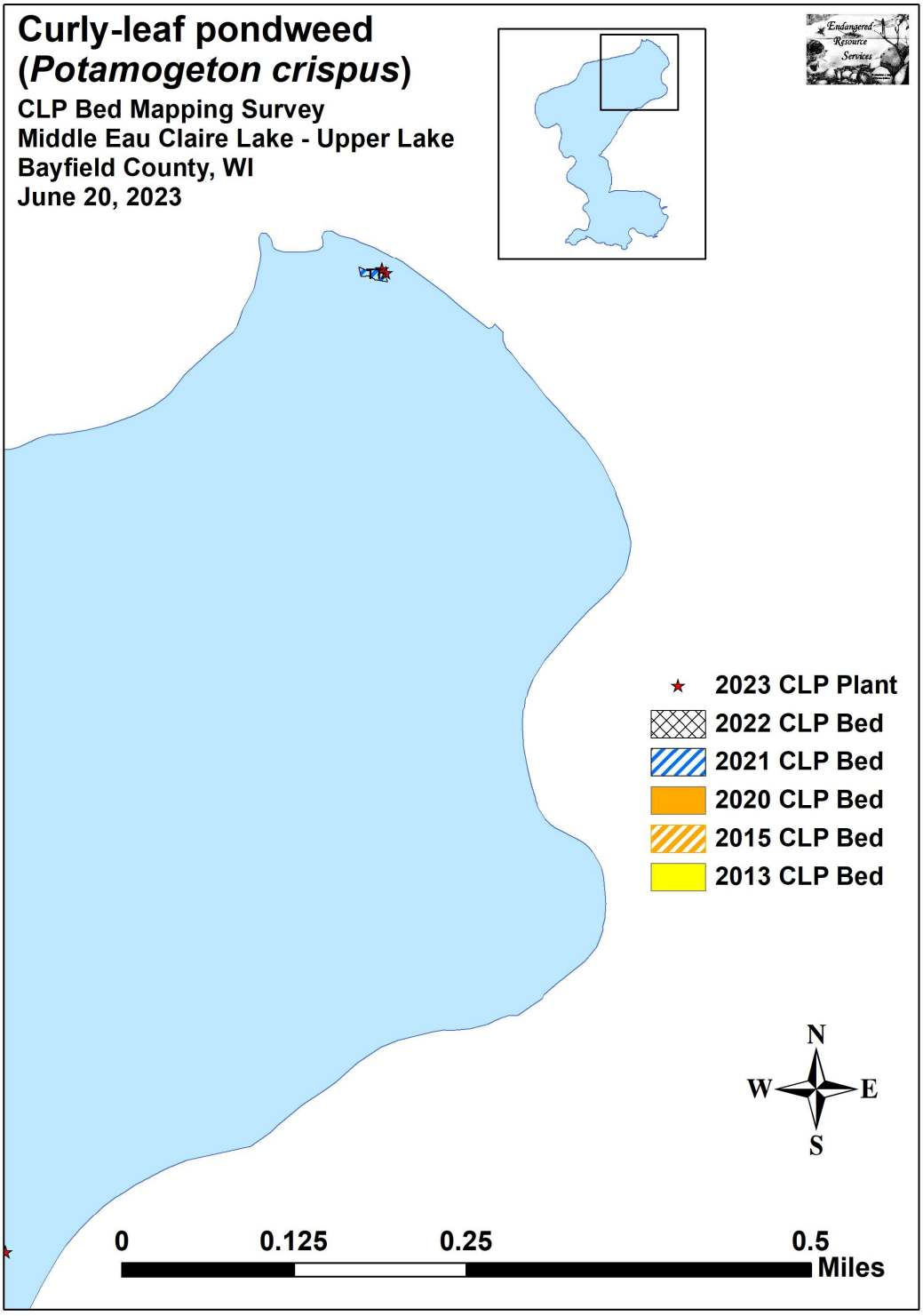
Curly-leaf pondweed
(Potamogeton crispus)
CLP Bed Mapping Survey
Middle Eau Claire Lake - Upper Lake
Bayfield County, WI
June 20, 2023
Endangered Resource Services
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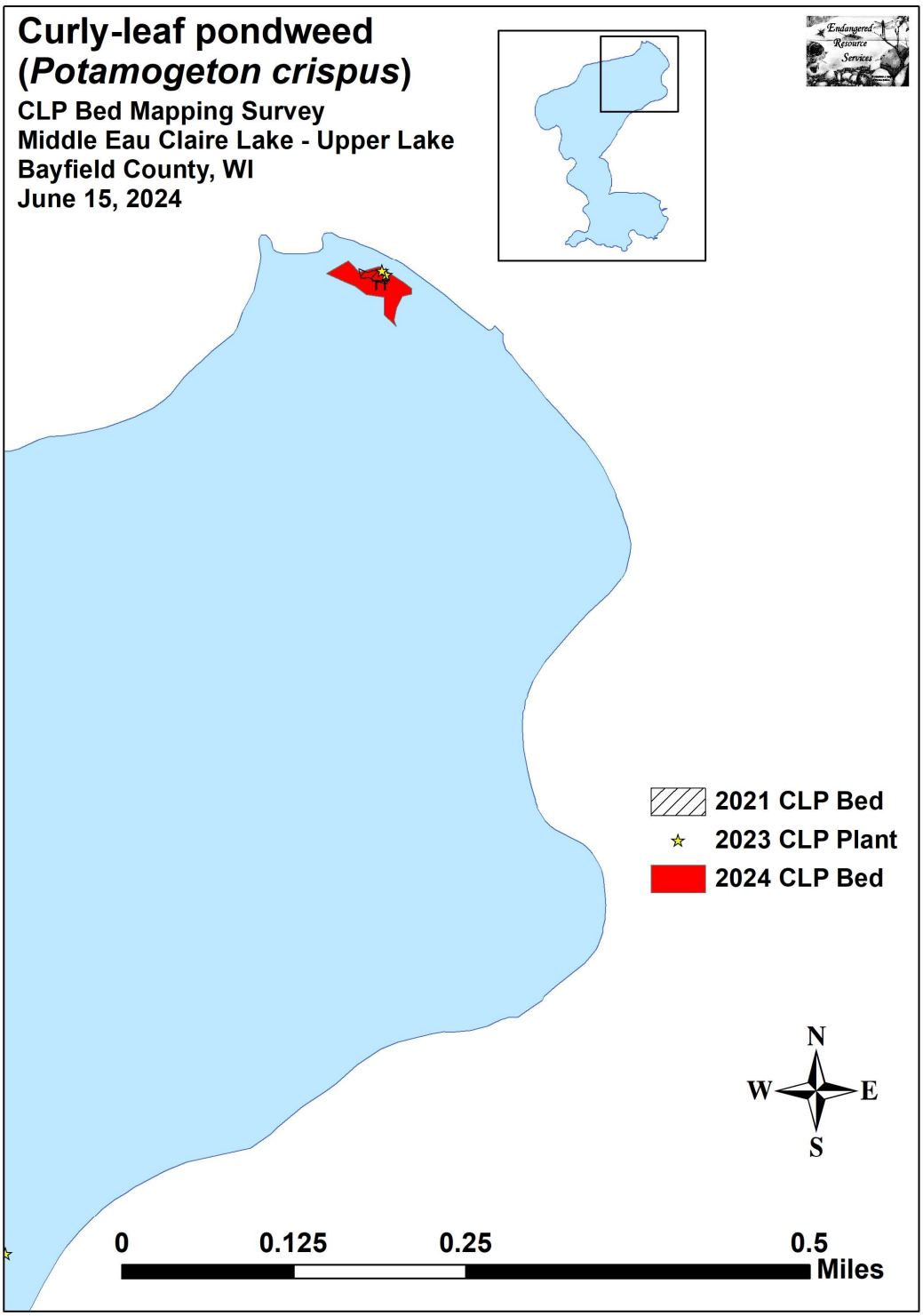
Curly-leaf pondweed
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CLP Bed Mapping Survey
Middle Eau Claire Lake - Upper Lake
Bayfield County, WI
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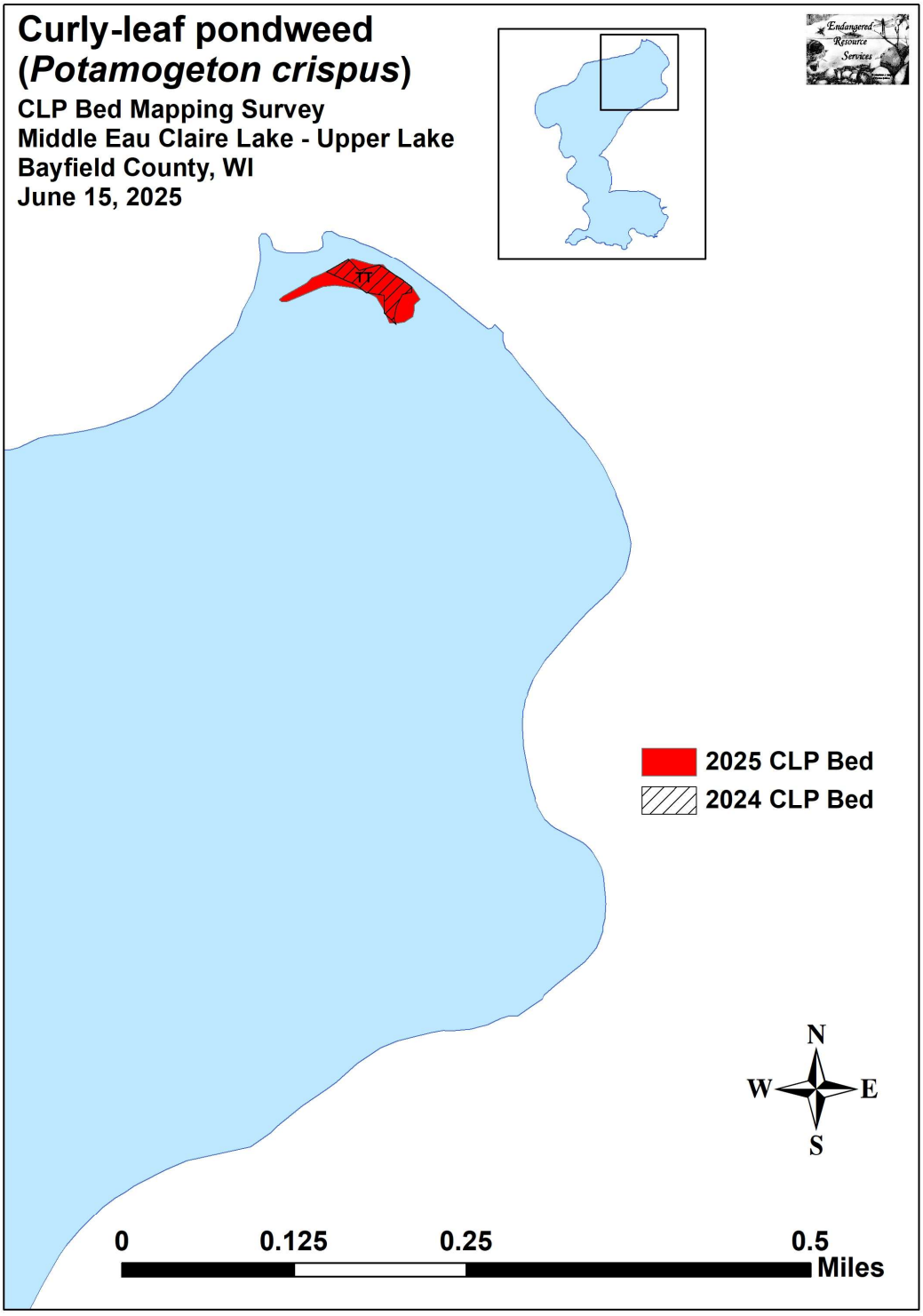
Curly-leaf pondweed
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CLP Bed Mapping Survey
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Bayfield County, WI
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