



MaMA Lingering Ash Search DATA FORM

Always fill out this form in the field for use as data backup/entry correction.
If not using [Aneccdata smartphone app](#), upload data via [Aneccdata.org](#).



See Lingering Ash and Potential Lingering Ash definitions on the back

When and how to use this form: You should use this form to record: 1) data for lingering ash or potential lingering ash found opportunistically; or 2) data from systematic searches for lingering ash or potential lingering ash. In either case, if two or more lingering (or potential lingering) ash are found adjacent to each other, you'll report these as a "cluster" on the same form. Trees in clusters will share the same GPS coordinates.

If you're doing a systematic search for lingering ash, make sure to record your search path from the beginning by using the *CalTopo* app on a smartphone (use QR code on this form to access the MaMA Lingering Ash Search *CalTopo* map) or by using a GPS unit. If using a GPS unit, submit the search track by email to Outreach@MonitoringAsh.org, even if you don't find any lingering ash. If using *CalTopo*, save your track with a name that contains the date of your survey and your name e.g., "7/27/2023 John Smith". When you finish your path, add info "No ash found" or "Ash found" and any other notes about your search in the description field before saving the track. If no lingering ash was found during the systematic search, you don't need to fill out this data form; just submit the search track.

Lingering Ash or Potential Lingering Ash Data

All fields marked as "private" will be entered in the project database but not publicly visible.

GPS coordinates of Lingering/Potential Lingering Ash or cluster (private)	Lat. (Eastern US between 30 & 50; list to 5 decimal places)	Long. (Eastern US between -67 & -97; list to 5 decimal places)
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Observer's full name (private):	Observation Date:	If submitting data to <i>Aneccdata</i> after you leave the site, make sure to manually enter the correct observation date and GPS coordinates; otherwise, they will default to the data entry date and your data entry computer/phone location.
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Observer's email address (private):	Institutional affiliation (if relevant):
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Location (private): e.g., Highmount State Park or John Smith's woodlot

Name of property owner or land manager, if known (private):

Email of property owner/manager if known (private):

Phone of property owner/manager if known (private):

Was property owner or manager notified about the tree? Please notify land manager of all lingering ash/potential lingering ash found, so they can be protected from felling. Yes No Will do so

Habitat where lingering ash (or cluster) was found (circle all that apply) Upland Wetland Floodplain Forest edge Forest interior Mostly open (e.g. field, hedge)

Is this tree (or cluster of trees) naturally occurring at the site (not planted there)? Trees that were planted at the site should not be reported. Definitely Likely

Was this tree (or cluster) chemically treated against EAB? Trees chemically treated against EAB should not be reported. Definitely not Unlikely

Lingering tree # (only enter multiple trees if there are a cluster of them)	1	2	3	4	5	6	7
Other ID? (e.g. Tree tag #, flagging tape)							
Species (abbreviations listed on the back)							
Crown health class (definitions on the back)							
Are seeds present? (Y/N)							
Are flowers present? (Y/N)							

Does this tree show any of the following signs? ([see www.monitoringash.org/signs-of-emerald-ash-borer/](http://www.monitoringash.org/signs-of-emerald-ash-borer/))

✓ Multiple D-shaped EAB exit holes? (Y/N)							
✓ EAB serpentine larval gallery? (Y/N) (if living, don't remove any bark)							
✓ Any serpentine galleries that are callused around (showing wound healing)? (Y/N)							
✓ Epicormic shoots? (Y/N)							
✓ Flaking by woodpeckers, with larva extraction holes? (Y/N) <i>Exposed inner bark is blond on recently flaked trees and gray on trees flaked less recently.</i>	Blond flaking						
	Gray flaking						

Lingering ash (or potential lingering ash) Tree Diameter at Breast Height (DBH) (If possible, measure DBH; otherwise estimate; if multiple trunks, measure largest one)	Estimated: Use DBH Class						
	Measured Circle unit used: CM or Inches						

Estimated height of lowest living branch on this lingering (potential lingering) ash: <10 feet; 10-20 feet; >20 feet							
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For each lingering (or potential lingering) ash take and upload the following photos:

- Its bark
- Its leaves, if possible
- Its crown condition
- Its branching pattern
- Seeds, if possible
- Any of these signs if present: multiple D-shaped holes, EAB serpentine galleries, callused galleries, epicormic shoots and flaking by woodpeckers.

HEALTH OF ASH TREES NEAR THE INDIVIDUAL LINGERING ASH (OR POTENTIAL LINGERING ASH) OR CLUSTER

Use the following to record the health of the 20 ash trees (DBH ≥4 inches or ≥10 cm) nearest the lingering/potential lingering ash tree or cluster, up to a distance of about 250 ft. from the lingering/potential lingering ash or cluster. If fewer than 20 such trees are found within that distance of the lingering/potential lingering ash tree or cluster, just record data for as many as are present.

Tree #	1	2	3	4	5	6	7	8	9	10
Species										
Definite EAB signs (Y/N)										
Tree health category										
DBH Class										
Decomposing (Y/N) <i>only record for dead trees</i>										

Tree #	11	12	13	14	15	16	17	18	19	20
Species										
Definite EAB signs (Y/N)										
Tree health category										
DBH Class										
Decomposing (Y/N) <i>only record for dead trees</i>										

Notes (use this space for any additional information on the site, habitat, lingering/potential lingering ash or nearby ash that you think would be helpful):

Please take photos of front/back of completed data sheet and submit it via Anecdota or email it to Outreach@monitoringash.org (this will enable us to correct any entry errors in your electronic data).

Species: Enter “W/G” if you know it’s white or green ash but are not sure which; “W” for **white ash** (*Fraxinus americana*), “G” for **green (red) ash** (*F. pennsylvanica*), “B”; for **black (brown) ash** (*F. nigra*), “Q” for **blue ash** (*F. quadrangulata*), “P” for **pumpkin ash** (*F. profunda*). Enter “A” if you don’t know which ash species it is.

Crown health classes for lingering trees: 1 = completely healthy; 2 = some twigs w/o leaves; 3 = < 50% crown die-back; 4 = ≥ 50% crown die-back; 5 = crown has no leaves, although there may be leaves on epicormic shoots or stump sprouts.

Definite EAB signs: Serpentine galleries, distinctive larvae, or multiple D-shaped holes.

Tree health category for nearby trees: **FD** - fallen dead; **SD** - standing dead (incl. canopy class 5); **C**- cut stump; **Dec** - declining trees (crown health classes 3 and 4); **H** - healthy (crown health class 1 and 2).

DBH classes – Estimated: **4-7” (10-18 cm)**; **8-12” (19-30 cm)**; **>12” (>30 cm)**

Decomposing (= long-dead) – signs of this include one or more of the following: bark largely missing or falling off; wood is rotten; tree has prominent fungi (e.g., mushrooms, turkey tails, bracket fungi) on much of it.

Lingering ash are naturally occurring, mature (≥ 4” or 10 cm DBH) native ash that, without chemical treatment against EAB, remain healthy (canopy class 1 or 2) for at least 2 years after 95% of the ash in an area have died from EAB.

“Potential lingering ash” are naturally occurring, mature (≥ 4” DBH), native ash that, without chemical treatment against EAB, are healthy (canopy class 1 or 2) in areas where there has not yet been 95% mortality from EAB for 2 years, but where *most of the mature ash are dead (Canopy Health Class 5 or fallen) and/or dying (Canopy Class 4)* from EAB. You will be contacted when the area becomes a Lingering Ash Search Zone and asked to see if the potential lingering ash you reported is/are still healthy.

Tree criteria for lingering ash (and potential lingering ash):

- Diameter at Breast Height (DBH) of ≥4 inches or 10 cm (= circumference of ≥12.5 inches or 31.4 cm), estimated or measured about 4 ½ feet or 1.4 m off the ground.
- Healthy Crown Health Class 1 or 2, but can also be Class 3 with only slight die-back, see photographic guide at www.monitoringash.org/ash-canopy-health-classes;
No planted trees and No trees treated chemically against EAB.