

Supplementary material 1: Supplementary Table 1. Morphological characteristics of asexual stages of PM samples on genus *Lactuca* sorted by geography.

PM species	<i>Lactuca</i> species	country	no. of samples	conidia length [μm]	conidia width [μm]	shape index	foot cell length [μm]	conidiophore length [μm]
<i>G. bolayi</i>	<i>L. serriola</i>	POL	44	26.90 ± 0.81	13.08 ± 0.83	2.05 ± 0.13	47.75 ± 6.73	131.04 ± 18.88
				25.43–28.93	11.31–15.39	1.63–2.30	26.93–73.35	68.20–192.99
		SVK	22	26.62 ± 0.92	12.60 ± 1.07	2.11 ± 0.18	48.54 ± 7.43	130.06 ± 24.24
				24.65–27.98	10.80–15.12	1.63–2.49	40.03–73.49	97.84–221.62
		HUN	16	26.89 ± 1.24	12.61 ± 0.62	2.14 ± 0.16	52.32 ± 6.55	131.49 ± 14.04
				24.34–29.52	11.40–13.95	1.78–2.40	41.62–64.17	107.57–156.24
		NLD	13	27.36 ± 0.93	11.92 ± 1.33	2.32 ± 0.20	58.70 ± 7.96	128.97 ± 19.36
				26.35–28.96	10.37–14.88	1.95–2.59	46.95–70.52	87.44–171.56
		DEU	8	26.96 ± 0.52	13.09 ± 0.65	2.07 ± 0.12	54.09 ± 7.5	120.84 ± 13.71
				26.24–27.82	12.36–14.00	1.87–2.20	41.60–65.72	96.24–136.48
		HRV	7	26.90 ± 0.73	12.61 ± 0.54	2.14 ± 0.09	55.45 ± 10.04	135.15 ± 18.10
				25.89–27.98	11.84–13.50	1.95–2.21	43.57–70.77	109.25–162.71
		BIH	6	27.57 ± 0.83	13.23 ± 0.63	2.09 ± 0.08	60.16 ± 14.15	130.51 ± 16.32
				26.04–28.81	12.16–14.21	1.97–2.17	43.31–85.87	101.02–146.62
		FRA	5	26.73 ± 1.70	12.43 ± 0.37	2.15 ± 0.15	53.38 ± 9.18	130.13 ± 13.67
				23.80–28.98	12.18–13.17	1.94–2.37	40.13–67.13	110.03–148.92
		CZE	4	26.36 ± 0.87	12.49 ± 1.01	2.14 ± 0.26	41.37 ± 6.61	115.96 ± 12.34
				25.02–27.40	10.75–13.20	1.90–2.58	31.98–49.42	102.51–133.66
		ESP	4	26.49 ± 0.58	12.77 ± 0.37	2.08 ± 0.10	46.94 ± 6.19	118.11 ± 4.87
				25.70–27.15	12.36–13.33	1.93–2.18	40.42–53.76	113.32–126.25
		GEO	3	28.24 ± 0.97	12.43 ± 0.90	2.29 ± 0.09	52.03 ± 6.38	149.25 ± 9.77
				27.16–29.51	11.28–13.47	2.19–2.41	45.14–60.51	138.75–162.27
		USA	3	27.55 ± 1.29	13.01 ± 1.39	2.14 ± 0.25	46.03 ± 6.17	115.17 ± 13.82
				25.75–28.73	11.57–14.88	1.89–2.48	37.38–51.34	95.84–127.31
		AUT	3	27.62 ± 0.56	12.69 ± 0.23	2.18 ± 0.08	45.06 ± 1.51	121.91 ± 3.16
				27.11–28.40	12.38–12.93	2.10–2.29	43.65–47.16	118.90–126.28
		SRB	3	27.48 ± 0.99	12.70 ± 0.37	2.17 ± 0.02	57.76 ± 9.13	134.77 ± 20.89
				26.35–28.40	12.36–12.93	2.14–2.29	44.86–47.16	105.23–126.28
		ZAF	2	27.98 ± 0.08	12.32 ± 0.12	2.28 ± 0.02	58.40 ± 2.28	138.23 ± 0.13
				27.90–28.06	12.20–12.44	2.26–2.29	56.12–60.67	138.10–138.35
		ISR	1	27.60 ± 2.03	14.48 ± 1.16	1.91 ± 0.21	40.00 ± 5.62	99.60 ± 18.73
				24.00–31.20	12.00–16.80	1.43–2.40	31.20–55.20	55.20–134.40

	ITA	1	30.50 ± 3.06	11.96 ± 0.74	2.56 ± 0.32	51.73 ± 8.24	128.83 ± 26.59
			24.40–36.60	9.76–12.20	2.00–3.25	36.60–65.88	73.20–180.56
	SVN	1	26.09 ± 2.13	13.64 ± 1.26	1.91 ± 0.24	44.59 ± 8.53	124.13 ± 20.79
			22.60–31.00	11.32–16.07	1.51–2.61	30.93–63.17	83.80–156.50
<i>L. sativa</i>	DEU	8	29.57 ± 1.17	12.51 ± 0.33	2.47 ± 0.19	89.95 ± 12.60	184.21 ± 20.80
			26.90–30.85	12.01–12.93	2.24–2.78	72.11–108.34	151.36–222.18
	ITA	5	29.10 ± 1.01	12.61 ± 0.65	2.40 ± 0.24	84.33 ± 16.21	172.64 ± 23.38
			27.61–30.35	11.67–13.42	2.21–2.86	59.14–101.08	146.89–208.60
	USA	3	30.33 ± 0.57	11.78 ± 0.74	2.57 ± 0.10	78.52 ± 4.01	160.83 ± 20.10
			29.54–30.83	10.75–12.44	2.48–2.70	75.30–84.18	132.74–178.64
	AUT	2	28.51 ± 0.61	12.57 ± 0.04	2.27 ± 0.04	94.55 ± 15.42	166.15 ± 15.68
			27.90–29.12	12.52–12.61	2.23–2.31	79.13–109.96	150.47–181.83
	FRA	2	29.72 ± 1.35	12.95 ± 0.02	2.16 ± 0.25	84.76 ± 1.05	163.28 ± 28.34
			28.37–31.07	12.93–12.97	1.91–2.40	83.71–85.81	134.93–191.62
	JPN	2	33.72 ± 1.80	13.09 ± 0.50	2.58 ± 0.03	71.77 ± 4.68	175.64 ± 17.04
			31.92–35.51	12.59–13.58	2.54–2.61	67.09–76.45	158.60–192.67
	PRT	2	29.56 ± 0.59	12.75 ± 0.59	2.33 ± 0.16	93.40 ± 36.50	168.32 ± 12.90
			28.96–30.15	12.16–13.34	2.17–2.48	56.90–129.89	155.42–181.21
	BEL	1	31.07 ± 3.56	13.26 ± 1.21	2.34 ± 0.37	110.29 ± 27.75	164.38 ± 35.31
			24.40–39.04	7.32–14.64	1.67–3.20	51.24–170.80	78.08–231.80
	CZE	1	29.52 ± 3.16	11.84 ± 1.24	2.49 ± 0.34	62.28 ± 17.88	163.43 ± 38.46
			21.89–38.08	8.29–14.77	1.74–3.19	27.00–101.10	92.10–227.60
	ISR	1	26.58 ± 1.32	11.66 ± 0.98	2.28 ± 0.22	48.08 ± 7.25	130.59 ± 11.07
			24.40–28.06	9.76–12.20	2.00–2.88	39.04–63.44	109.80–158.60
	NLD	1	25.76 ± 2.39	12.00 ± 0.62	2.15 ± 0.20	56.16 ± 15.54	110.24 ± 22.77
			21.60–31.20	9.60–14.40	1.80–2.60	33.60–96.00	72.00–168.00
	ZAF	1	29.71 ± 2.94	11.66 ± 1.28	2.55 ± 0.47	66.03 ± 13.75	197.66 ± 24.59
			22.80–37.10	8.94–14.29	1.89–4.15	39.44–94.24	158.40–260.50
<i>L. saligna</i>	NLD	3	28.69 ± 0.40	13.44 ± 0.56	2.14 ± 0.07	45.00 ± 4.73	115.75 ± 14.33
			28.15–29.12	12.65–13.83	2.08–2.24	38.32–48.62	95.49–126.39
	HUN	1	27.12 ± 2.71	12.32 ± 1.20	2.20 ± 0.33	54.08 ± 9.12	128.72 ± 16.41
			21.60–33.60	9.60–14.40	1.67–3.25	40.80–74.40	103.20–168.00
	SVK	1	27.00 ± 2.02	13.09 ± 1.20	2.08 ± 0.26	54.41 ± 9.85	112.57 ± 27.26
			24.40–29.28	12.20–14.64	1.67–2.40	36.60–80.52	61.00–168.36
<i>L. indica</i>	KOR	3	27.03 ± 1.10	12.36 ± 0.41	2.19 ± 0.03	39.96 ± 2.55	128.43 ± 17.30
			26.04–28.56	11.99–12.94	2.14–2.21	36.92–43.15	104.44–144.58
	NLD	1	27.98 ± 1.36	10.87 ± 1.12	2.59 ± 0.21	39.32 ± 9.09	127.50 ± 23.18

				24.40–30.50	7.32–12.20	2.30–3.33	24.40–51.24	70.76–165.92
<i>L. virosa</i>	FRA	2		27.50 ± 0.73	12.46 ± 0.07	2.21 ± 0.07	58.23 ± 0.89	130.21 ± 8.13
				26.76–28.23	12.39–12.53	2.14–2.28	57.34–59.12	122.08–138.33
	ESP	1		29.48 ± 2.43	14.03 ± 0.72	2.10 ± 0.21	50.99 ± 11.90	132.08 ± 21.25
				23.00–35.00	13.08–15.70	1.70–2.51	29.93–70.29	71.90–170.00
<i>L. altaica</i>	NLD	2		27.11 ± 1.44	12.85 ± 0.66	2.11 ± 0.13	40.82 ± 4.30	126.44 ± 7.18
				25.67–28.55	12.19–13.50	2.00–2.44	36.52–45.11	119.26–133.62
<i>L. aculeata</i>	NLD	2		28.39 ± 0.49	13.10 ± 0.17	2.17 ± 0.01	62.14 ± 0.73	106.87 ± 0.49
				27.90–28.87	12.93–13.26	2.16–2.18	61.41–62.87	106.38–107.36
<i>L. quercina</i>	SVK	1		26.58 ± 1.44	12.07 ± 1.17	2.21 ± 0.15	48.36 ± 10.09	111.65 ± 13.65
				24.80–32.24	11.16–18.60	1.73–2.40	22.32–64.48	95.48–141.36
<i>L. auriculata</i>	NLD	1		26.99 ± 1.03	10.50 ± 0.93	2.59 ± 0.22	38.54 ± 10.09	127.15 ± 13.65
				24.40–28.06	9.76–12.20	2.20–2.88	22.32–64.48	95.48–141.36
<i>L. tuberosa</i>	ISR	1		28.97 ± 2.61	13.35 ± 1.32	2.17 ± 0.15	59.74 ± 13.63	144.33 ± 19.45
				24.40–31.72	9.76–14.64	1.83–2.50	29.28–85.40	117.12–197.64
<i>P. xanthii</i>	<i>Lactuca</i> sp.	JPN	6	27.71 ± 2.74	16.08 ± 1.91	1.75 ± 0.26	37.88 ± 10.31	120.15 ± 30.53
				22.08–34.97	9.70–22.60	1.18–3.03	18.03–79.23	64.37–211.35