Supplementary Table 1: The collection regions of Tartary buckwheat accessions.

Accession	Species	Distribution Area	Latitude	Longitude	Group	Collector	Repository
CATCM002	Cultivar	Sansui, Guizhou, China	26.95	108.68	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM004	Cultivar	Panxian, Guizhou, China	25.71	104.47	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM005	Cultivar	Congyang, Anhui, China	30.70	117.23	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM006	Cultivar	Guiyang, Guizhou, China	26.65	106.62	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM007	Cultivar	Congyang, Anhui, China	30.70	117.23	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM008	Cultivar	Weining, Guizhou, China	26.88	104.27	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM051	Cultivar	Jiacha, Xizang, China	29.14	92.59	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM052	Cultivar	Jiacha, Xizang, China	29.14	92.59	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM064	Cultivar	Xichang, Sichuan, China	27.89	102.26	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM065	Cultivar	Xichang, Sichuan, China	27.89	102.26	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM066	Cultivar	Xichang, Sichuan, China	27.89	102.26	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM069	Cultivar	Shangri-La, Yunnan, China	27.83	99.70	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM071	Cultivar	Liangshan, Sichuan, China	27.89	102.27	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM073	Cultivar	Pingliang, Gansu, China	35.55	106.67	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM074	Cultivar	Guiyang, Guizhou, China	26.65	106.62	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM075	Cultivar	Shangri-La, Yunnan, China	27.83	99.70	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM078	Cultivar	Taiyuan, Shanxi, China	37.87	112.54	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM079	Cultivar	Taiyuan, Shanxi, China	37.87	112.54	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM081	Cultivar	Taiyuan, Shanxi, China	37.87	112.54	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM082	Cultivar	Weining, Guizhou, China	26.88	104.27	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM083	Cultivar	Taiyuan, Shanxi, China	37.87	112.54	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM086	Cultivar	Shuicheng, Guizhou, China	26.59	104.82	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM087	Cultivar	Guyuan, Ningxia, China	36.02	106.25	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM088	Cultivar	Weining, Guizhou, China	26.88	104.27	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM090	Cultivar	Weining, Guizhou, China	26.88	104.27	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM091	Cultivar	Weining, Guizhou, China	26.88	104.27	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM093	Cultivar	Tongcheng, Anhui, China	31.04	116.98	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM094	Cultivar	Shannan, Xizang, China	29.24	91.78	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM095	Cultivar	Yangling, Shaanxi, China	34.27	108.09	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM096	Cultivar	Xichang, Sichuan, China	27.89	102.26	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM099	Cultivar	Zhaotong, Yunnan, China	27.34	103.71	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM100	Cultivar	Xishuangbanna, Yunnan, China	22.01	100.08	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM102	Cultivar	Yulin, Shaanxi, China	38.28	109.73	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM105	Cultivar	Diqing, Yunnan, China	27.82	99.69	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM106	Cultivar	Zhaotong, Yunnan, China	27.34	103.71	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM107	Cultivar	Nepal	29.45	82.45	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM108	Cultivar	Nepal	29.45	82.45	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM109	Cultivar	Dolpu, Mugu district Karnali Zone, Nepal	29.45	82.45	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM110	Cultivar	Brandolini, Italy	45.48	9.26	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM111	Cultivar	IPK Gatersleben, Germany	51.49	11.16	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM112	Cultivar	IPK Gatersleben, Germany	51.49	11.16	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM113	Cultivar	DSV, Deutsche Saatveredelung, Germany	51.40	8.12	Cultivar-I	Chen Qingfu	Guizhou Normal University

Supplementary Table 1 (Continued):

CATCM114	Cultivar	IPK Gatersleben, Germany	51.49	11.16	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM115	Cultivar	IPK Gatersleben, Germany	51.49	11.16	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM116	Cultivar	IPK Gatersleben, Germany	51.49	11.16	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM117	Cultivar	Botanical Garden, Greifswald, Germany	54.50	13.23	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM118	Cultivar	Jumla, Karnali zone, Nepal	29.16	82.11	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM119	Cultivar	Dolpu, Mugu district Karnali Zone, Nepal	29.45	82.45	Cultivar-I	Chen Qingfu	Guizhou Normal University
CATCM001	Cultivar	Dafang, Guizhou, China	27.23	105.69	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM003	Cultivar	Shuicheng, Guizhou, China	26.59	104.82	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM063	Cultivar	Aohanqi, Inner Mongolia, China	42.30	119.93	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM067	Cultivar	Xichang, Sichuan, China	27.89	102.26	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM068	Cultivar	Xichang, Sichuan, China	27.89	102.26	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM070	Cultivar	Shangri-La, Yunnan, China	27.83	99.70	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM072	Cultivar	Fenghuang, Hunan, China	27.95	109.60	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM076	Cultivar	Taiyuan, Shanxi, China	37.87	112.54	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM077	Cultivar	Taiyuan, Shanxi, China	37.87	112.54	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM080	Cultivar	Taiyuan, Shanxi, China	37.87	112.54	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM084	Cultivar	Shuicheng, Guizhou, China	26.59	104.82	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM085	Cultivar	Shuicheng, Guizhou, China	26.59	104.82	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM089	Cultivar	Weining, Guizhou, China	26.88	104.27	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM092	Cultivar	Weining, Guizhou, China	26.88	104.27	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM097	Cultivar	Xichang, Sichuan, China	27.89	102.26	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM098	Cultivar	Xichang, Sichuan, China	27.89	102.26	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM101	Cultivar	Diqing, Yunnan, China	27.82	99.69	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM103	Cultivar	Kunming, Yunnan, China	24.89	102.84	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM104	Cultivar	Kunming, Yunnan, China	24.89	102.84	Cultivar-II	Chen Qingfu	Guizhou Normal University
CATCM009	Wild	Maoxian, Sichuan, China	31.68	103.85	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM010	Wild	Maerkang, Sichuan, China	31.91	102.21	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM011	Wild	Maerkang, Sichuan, China	31.91	102.21	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM012	Wild	Maerkang, Sichuan, China	31.91	102.21	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM013	Wild	Maerkang, Sichuan, China	31.91	102.21	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM014	Wild	Maerkang, Sichuan, China	31.91	102.21	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM015	Wild	Maerkang, Sichuan, China	31.91	102.21	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM016	Wild	Maerkang, Sichuan, China	31.91	102.21	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM018	Wild	Wenchuan, Sichuan, China	31.48	103.59	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM019	Wild	Wenchuan, Sichuan, China	31.48	103.59	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM020	Wild	Jiuzhaigou, Sichuan, China	33.26	103.92	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM021	Wild	Jiuzhaigou, Sichuan, China	33.26	103.92	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM024	Wild	Wenchuan, Sichuan, China	31.48	103.59	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM025	Wild	Deqin, Yunnan, China	28.47	98.92	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM026	Wild	Deqin, Yunnan, China	28.47	98.92	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM030	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM031	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM033	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-I	Chen Qingfu	Guizhou Normal University

Supplementary Table 1 (Continued):

CATCM034	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM042	Wild	Lixian, Sichuan, China	31.44	103.16	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM043	Wild	Lixian, Sichuan, China	31.44	103.16	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM044	Wild	Lixian, Sichuan, China	31.44	103.16	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM045	Wild	Lixian, Sichuan, China	31.44	103.16	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM046	Wild	Lixian, Sichuan, China	31.44	103.16	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM047	Wild	Lixian, Sichuan, China	31.44	103.16	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM056	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-I	Chen Qingfu	Guizhou Normal University
CATCM022	Wild	Batang, Sichuan, China	30.01	99.11	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM023	Wild	Wenchuan, Sichuan, China	31.48	103.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM027	Wild	Gongbujiangda, Xizang, China	29.88	93.24	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM028	Wild	Gongbujiangda, Xizang, China	29.88	93.24	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM029	Wild	Gongbujiangda, Xizang, China	29.88	93.24	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM032	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM035	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM036	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM037	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM038	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM039	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM040	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM041	Wild	Zuogong, Xizang, China	29.56	97.8	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM048	Wild	Shannan, Xizang, China	29.24	91.78	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM049	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM050	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM053	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM054	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM055	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM057	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM058	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM059	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM060	Wild	Jiacha, Xizang, China	29.14	92.59	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM061	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-II	Chen Qingfu	Guizhou Normal University
CATCM062	Wild	Mangkang, Xizang, China	29.61	98.61	Wild-II	Chen Qingfu	Guizhou Normal University

Note: For some accessions, latitude and longitude represent the government seat of the corresponding county or city, rather than the exact field sampling sites.