

New Combinations of East Asian Species of *Polygonum* s. l.

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Classification systems of *Polygonum* s.l. applied to East Asian species are compared, and circumscriptions of *Persicaria* and *Fallopia* are discussed. New combinations for the species of *Aconogonon* (one variety of *A. molle*), *Bistorta* (five species), *Fallopia* (one species and five varieties) and *Persicaria* (four species and two varieties) previously included in *Polygonum* s.l. in East Asia are proposed.

Polygonum L. (1753) is characterized by herbaceous or undershrubby habit, 4–5 parted persistent perianths, 6–8 stamens, 2 or 3 styles usually with capitate stigmata, and lenticular or trigonous achenes (Bentham and Hooker 1880, Dammer 1894). Boundaries between *Polygonum* and its allied genera (i.e., *Atraphaxis*, *Koenigia*, *Muehlenbeckia*, *Polygonella*, etc.) are, however, not clear. Many botanists have tried to construct a natural system by dividing *Polygonum* into more natural smaller genera and consequently various systems have been proposed (e.g., Gross 1913a, 1913b, Nakai 1926, Roberty and Vautier 1956, Soják 1974, Haraldson 1978, Tzvelev 1987, Ronse Decraene and Akeroyd 1988).

Recent studies on morphology and anatomy of *Polygonum* s. l. by Haraldson (1978) and by Ronse Decraene and Akeroyd (1988) revealed that this genus is not monophyletic, and the diagnostic characters for *Polygonum* s. l. are considered to be plesiomorphic rather than apomorphic. Haraldson (1978) and Ronse Decraene and Akeroyd (1988) therefore overturned previous concepts of *Polygonum* s. l. and divided it into eight genera in three tribes or five genera in two tribes, respectively. There

are some disaccordance between two systems proposed by Haraldson (1978) and Ronse Decraene and Akeroyd (1988) in the generic circumscription of some genera, especially those of *Persicaria* Mill. and *Fallopia* Adans.

The Asian species of *Polygonum* in the broad sense have been classified into many small genera, but circumscriptions of some genera are different from each other as shown in Table 1. On the other hand, the traditional system of keeping *Polygonum* s. l. as a distinct genus has also been firmly adopted in floras in East Asia (Steward 1930, Ohwi 1953, 1965, Kitamura and Murata 1961, Li 1983, 1993, Kuo et al. 1996). We agree with them to divide *Polygonum* s. l. into several small genera. In this paper, various systems hitherto applied to East Asian species of *Polygonum* s. l. are compared in the viewpoint of dividing this genus, and discussed about the problem of circumscriptions of genera *Persicaria* and *Fallopia*. New combinations of East Asian species based on this concept are proposed.

1. Circumscription of *Persicaria* Mill.

Haraldson (1978) included *Aconogonon*, *Bistorta*, *Koenigia*, and *Persicaria* (had been thought to be unrelated genera) into the tribe

Table 1. Comparison of systems of *Polygonum* s. l. with representative Asian species

Species (under <i>Polygonum</i>)	Hooker (1885)	Gross (1913 a, b)	Nakai (1926)	Steward (1930)	Hedberg (1946)	Roberty & Vautier (1964)																							
<i>Polygonum islandicum</i>	<i>Polygonum</i>	<i>Koenigia</i>	×	<i>Polygonum</i>	<i>Koenigia</i>	<i>Polygonum</i>																							
<i>P. filicaule</i>		<i>Persicaria</i>	<i>Ambryonum*</i>		<i>Tovara*</i>	<i>Persicaria</i>	<i>Ampelygonum</i>																						
<i>P. nepalense</i>							<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>																				
<i>P. chinense</i>										<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>																	
<i>P. perfoliatum</i>													<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>														
<i>P. senticosum</i>																<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>											
<i>P. sagittatum</i>																			<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>								
<i>P. orientale</i>																						<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>					
<i>P. amphibium</i>																									<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>		
<i>P. persicaria</i>																												<i>Polygonum</i>	<i>Polygonum</i>
<i>P. filiforme</i>				<i>Polygonum</i>																									
<i>P. polystachyum</i>		<i>Polygonum</i>	<i>Polygonum</i>		<i>Polygonum</i>																								
<i>P. divaricatum</i>						<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>																					
<i>P. weyrichii</i>									<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>																		
<i>P. sibiricum</i>												<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>															
<i>P. bistorta</i>															<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>												
<i>P. convolvulus</i>																		<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>									
<i>P. multiflorum</i>																					<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>						
<i>P. cuspidatum</i>																								<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>			
<i>P. aviculare</i>																											<i>Polygonum</i>	<i>Polygonum</i>	<i>Polygonum</i>
<i>P. fagopyrum</i>	<i>Polygonum</i>			<i>Polygonum</i>																									
		<i>Fagopyrum</i>	<i>Fagopyrum</i>																										

Hara (1966)	Sojak (1974)	Haraldson (1978)	Tzvelev (1987)	Ronse Decraene & Akeroyd (1988)	Hong (1989, 1993)	Yonekura & Ohashi (1997)
<i>Koenigia</i>		<i>Koenigia</i>				
<i>Truellum</i>	<i>Persicaria</i>	<i>Persicaria</i>	×	<i>Persicaria</i>	<i>Persicaria</i>	<i>Persicaria</i>
			<i>Cephalophilon</i>			
<i>Persicaria</i>	<i>Persicaria</i>	<i>Persicaria</i>	×	<i>Persicaria</i>	<i>Persicaria</i>	<i>Persicaria</i>
			<i>Chylocalyx</i>			
<i>Antenoron</i>	<i>Persicaria</i>	<i>Persicaria</i>	<i>Truellum</i>	<i>Persicaria</i>	<i>Persicaria</i>	<i>Persicaria</i>
			<i>Antenoron</i>			
<i>Persicaria</i>	×	<i>Antenoron</i>	<i>Antenoron</i>	<i>Antenoron</i>	<i>Antenoron</i>	<i>Antenoron</i>
<i>Aconogonon</i>	<i>Pleuropteryrum</i>	<i>Aconogonon</i>	<i>Aconogonon</i>	<i>Aconogonon</i>	<i>Aconogonon</i>	<i>Aconogonon</i>
			<i>Knorringia</i>	×	<i>Knorringia</i>	<i>Knorringia</i>
			<i>Bistorta</i>	<i>Persicaria</i>	<i>Bistorta</i>	<i>Bistorta</i>
<i>Bilderdykia*</i>				<i>Fallopia</i>		
×	×					
×		<i>Reynoutria</i>			<i>Reynoutria</i>	<i>Reynoutria</i>
			<i>Polygonum</i>			
			<i>Fagopyrum</i>			

Hatched areas indicate *Persicaria* as a genus. ×: plants did not treated by the author(s) in the paper.
*: illegitimate names.

Persicarieae on the basis of some distinct anatomical characters of petiole and stem. Her opinion was supported by Ronse Decraene and Akeroyd (1988), but they recognized

Koenigia and *Persicaria* as distinct genera and treated *Aconogonon* and *Bistorta* as sections of the genus *Persicaria*. They also included genera *Fagopyrum* and *Harpagocarpus* into

Persicarieae, which were regarded by Haraldson (1978) as a member of the tribe Polygoneae and Coccolobeae respectively.

Aconogonon, *Bistorta*, *Koenigia*, and *Persicaria* had often been treated as distinct genera from *Polygonum* L. before Haraldson (1978) (e.g., Gross 1913a, 1913b, Nakai 1926, Hara 1966, Soják 1974). In addition, such small groups are regarded to be distinct as *Antenoron* Raf. by Steward (1930, as *Tovara* Adans., now nom. rejic.), Roberty and Vautier (1954) and Hara (1966), and *Truellum* Houtt. by Soják (1974), but these were not treated as distinct by Haraldson (1978) because their diagnostic characters were regarded as insufficient for generic division. On the other hand, Tzvelev (1987) splitted *Persicaria* in the sense of Haraldson into five genera, i.e., *Antenoron* Raf., *Cephalophilon* Spach, *Chylocalyx* Hassk. ex Miq., *Persicaria* s. str., and *Truellum* Houtt. Tzvelev (1987) also proposed a new genus *Knorringia* (Czuk.) Tzvel. based on *Polygonum sibiricum* Laxm. and *P. pamilicum* Korsh., which were regarded as a member of *Polygonum* sect. *Aconogonon* (Steward 1930) or *Aconogonon* (Hara 1966). Hong (1989) supported this generic status and treated this genus as belonging to a tribe Coccolobeae, not to Persicarieae.

Hong (1989, 1992, 1993) revealed the border between *Aconogonon* and *Persicaria* clearer than that of Ronse Decraene and Akeroyd (1988) and recognized *Aconogonon* as a distinct genus. We agree with his opinion for the treatment of *Aconogonon*. Ronse Decraene and Akeroyd (1988) treated *Bistorta* as a section of *Persicaria*, but *Bistorta* has not only distinct gross morphology, i.e., the lignified rhizome or prostrate stem and the spike-like pseudoraceme, which have been traditionally used as the diagnostic characters of this genus, but also some other characteristics such as the anatomical character of leaf petiole (Haraldson 1978), the nectaries coher-

ent with base of filaments of inner wheel (Ronse Decraene and Akeroyd 1988; Ronse Decraene and Smets 1991), and the tricolporate pollen grains with minutely punctate and microspinulose exine sculptures and with densely packed collumerae (Nowicke and Skvarla 1987). Moreover, no hybrids have been reported between *Bistorta* and related genera. In this reason we recognize *Bistorta* as a distinct genus from *Persicaria*.

Polygonum filiforme, *P. neofiliforme* of eastern Asia, and *P. virginianum* of eastern North America have been frequently treated as constituting an independent genus *Antenoron* Raf. because of its unique hook-like persistent styles, reduced number of tepals and stamens, and distinct 12-colpate pollen aperture type (Nakai 1926, Steward 1930, Roberty and Vautier 1956, Hara 1966). Gross morphological characters of these species are, however, very similar to the genus *Persicaria* and some microcharacters used to distinguish these species from *Persicaria* have proved unclear (Haraldson 1978). Moreover, according to a cladistic analysis made by Hong (1993), *Persicaria* including *Antenoron* and some other small groups recognized by Tzvelev (1987) as distinct genera constituted a monophyletic group.

As discussed above, we follow Haraldson (1978) and Hong (1993) and recognized *Aconogonon* (except *Knorringia*) and *Bistorta* as distinct genera from *Persicaria*, but such groups as *Antenoron*, *Cephalophilon*, and *Truellum* are treated as sections of *Persicaria* and not regarded as distinct genera.

2. Circumscription of *Fallopia* Adanson

Fallopia Adans. in the broad sense is characterized by existence of extrafloral nectaries, keeled outer tepals, dendricular tepal venation, filaments dilated at base and usually covered with papillae, and fimbriate stigma (in some species) (Ronse Decraene and Akeroyd 1988). Other various generic names, i.e.,

Reynoutria (1777), *Bilderdykia* (1827), *Tiniaria* (1837), or *Pleuropterus* (1848) had been used to this group before Holub (1970) mentioned the priority of *Fallopia* (1763). Three different concepts have been proposed on the classification of *Fallopia* after Nakai (1926) (Table 1): Nakai (1926) recognized three genera *Bilderdykia*, *Pleuropterus* Turcz., and *Reynoutria* Houtt. in this group on the basis of gross morphology (twining vs. erect habit), shape of stigma and pollen sculpture, and his treatment was followed by Hara (1966) and Kitagawa (1979, 1982). On the other hand, Hedberg (1946) and Ronse Decraene and Akeroyd (1988) united these genera and recognized one genus in this group. Haraldson (1978) recognized two genera *Fallopia* and *Reynoutria* on the basis of gross morphology, anatomical character and stigma shape, and Tzvelev (1987) followed her treatment.

Ronse Decraene and Akeroyd (1988) united *Fallopia* (in the sense of Haraldson (1978)) and *Reynoutria* under *Fallopia* s. l., because the distinctions of both genera are mostly of vegetative characters and a hybrid between these two genera is found. We support their opinion.

Fallopia s. l. is classified into the tribe Polgoneae by Ronse Decraene and Akeroyd (1988), while Haraldson treated it to be belonging to the tribe Coccolebeae. We follow Haraldson (1978) because not only evidence given by her but also existence of extrafloral nectaries. The nectary shows relation to *Muehlenbeckia* in the tribe Coccolebeae in the sense of Haraldson, as mentioned by Lersten and Kurtis (1992). Ronse Decraene and Akeroyd (1988) did not compare *Fallopia* to the genera of Coccolebeae, and the reason they included this genus in the tribe Polygoneae seems to be not clear.

3. New combinations for Asian species of *Polygonum* s. l.

Aconogonon molle (D. Don) H. Hara, Fl.

E. Himal. 68 (1966), ut *Aconogonum*.

Polygonum molle D. Don, Prodr. Fl. Nepal. 72 (1825).

Persicaria mollis (D. Don) H. Gross in Bull. Géogr. Bot. 23: 31 (1913).

var. ***paniculatum*** (Blume) Yonekura & H. Ohashi, comb. nov.

Polygonum paniculatum Blume, Bijdr. 533 (1825).

Aconogonon paniculatum (Blume) Haraldson in Symb. Bot. Upsal. 22(2): 69 (1978).

Polygonum frondosum Meisn. in DC. Prodr. 14: 137 (1856).

Polygonum paniculatum var. *frondosum* (Meisn.) Steward in Contr. Gray Herb. Harvard Univ. 88: 196 (1930).

Aconogonon molle var. *frondosum* (Meisn.) H. Hara, Fl. E. Himal. 68 (1966); in Hara et al., Enum. Fl. Pl. Nepal 3: 187 (1982); Hong in Symb. Bot. Upsal. 30(2): 87 (1992).

Distr. Himalayas to China.

Aconogonon molle (D. Don) H. Hara, occurring in the Himalayas, SW China, India, Sri Lanka and Indonesia, is very variable in the hairiness of stems and leaves, and according to Hong (1992), is separated into four varieties. Var. *frondosum* is the variety including the type of *Polygonum paniculatum* Blume, hence this name should be changed because of the priority of autonym.

Bistorta coriacea (Sam.) Yonekura & H. Ohashi, comb. nov.

Polygonum coriaceum Sam. in Hand.-Mazz., Symb. Sin. 2: 174 (1929).

Distr. SW. China.

Bistorta honanensis (H. W. Kung) Yonekura & H. Ohashi, comb. nov.

Polygonum honanense H. W. Kung in Chin. J. Bot. 1(1): 14, pl. 4 (1936).

Distr. Central China.

Bistorta paleacea (Wall. ex Hook. f.) Yonekura & H. Ohashi, comb. nov.

Polygonum paleaceum Wall. [Cat. no. 1684

(1828), nom. nud.; Meisn. in Wall. Pl. As. Rar. 3: 54 (1832), nom. nud.] ex Hook. f., Fl. Brit. Ind. 5: 32 (1836).

Distr. Assam to SW. China.

Bistorta purpureonervosa (A. J. Li) Yonekura & H. Ohashi, comb. nov.

Polygonum purpureonervosum A. J. Li in Bull. Bot. Res. (Harbin) 15: 416 (1995).

Distr. SW. China (Sichuan).

Bistorta taipaihanensis (H. W. Kung) Yonekura & H. Ohashi, comb. nov.

Polygonum taipaihanense H. W. Kung in Chin. J. Bot. 1(1): 13, pl. 3 (1936).

Distr. Central China.

Fallopia forbesii (Hance) Yonekura & H. Ohashi, comb. nov.

Polygonum forbesii Hance in Journ. Bot. 21: 100 (1883).

Reynoutria forbesii (Hance) T. Yamaz. in Jpn. Bot. 69: 180 (1994), ut *fargesii*.

Distr. Korea and China.

Fallopia japonica (Houtt.) Ronse Decraene in Ronse Decraene & Akeroyd in Bot. J. Linn. Soc. 98: 369 (1988).

Reynoutria japonica Houtt., Nat. Hist. 8: 639, pl. 51 (1777); Kitagawa in Satake et al., Wild Fl. Jap. 2: 24 (1982).

Polygonum cuspidatum Siebold & Zucc. in Abh. Bayer. Acad. Wiss. Math. Phys. Cl. 4(3): 208 (1846); Ohwi in Fl. Jap. 474 (1953); Kitamura & Murata, Col. Ill. Herb. Pl. Jap. (Choripet.) 316 (1961).

var. **hachidoensis** (Honda) Yonekura & H. Ohashi, comb. nov.

Polygonum hachidoense Makino in J. Jap. Bot. 5: 21 (1928).

Reynoutria hachidoensis (Makino) Honda in Bot. Mag. Tokyo 49: 1 (1935).

Reynoutria hachidoensis var. *terminalis* Honda in Bot. Mag. Tokyo 49: 695 (1935), ut var. *terminalis* (Honda) Honda.

Reynoutria japonica var. *terminalis* Honda, l. c. 49: 695 (1935), pro syn.; Kitagawa in Satake et al., Wild Fl. Jap. 2: 24 (1982).

Distr. Japan (Izu Isls.)

var. **uzenensis** (Honda) Yonekura & H. Ohashi, comb. nov.

Reynoutria japonica var. *uzenensis* Honda in Bot. Mag. Tokyo 46: 675 (1932); Kitagawa in Satake et al., Wild Fl. Jap. 2: 24 (1982), ut *uzensis*.

R. uzensis (Honda) Honda in Bot. Mag. Tokyo 49: 791 (1935).

Distr. N. Honshu and Japan Sea side region of C. Honshu.

Fallopia multiflora (Thunb. ex Murray) Haraldson in Symb. Bot. Upsal. 22(2): 77 (1978), cum auct. epith. Thunb.

Polygonum multiflorum Thunb. ex Murray, Syst. Veg. ed. 14, 379 (1784); Thunb., Fl. Jap. 169 (1784); Ohwi, Fl. Jap. 474 (1953), cum auct. epith. Thunb.; Kitamura & Murata, Col. Ill. Herb. Pl. Jap. (Choripet.) 314 (1961), cum auct. epith. Thunb.

Pleuropterus multiflorus (Thunb. ex Murray) Turcz. ex Nakai in Fedde. Rep. 13: 267 (1914), cum auct. epith. Thunb.

var. **ciliinervis** (Nakai) Yonekura & H. Ohashi, comb. nov.

Pleuropterus ciliinervis Nakai in Fedde Rep. 13: 267 (1914).

Polygonum multiflorum var. *ciliinerve* (Nakai) Steward in Contr. Gray Herb. Harvard Univ. 88: 97 (1930).

Distr. Korea and N. China.

var. **hypoleuca** (Ohwi) Yonekura & H. Ohashi, comb. nov.

Pleuropterus hypoleucus Nakai in Rigakkai 24: 294 (1926), nom. nud.

Polygonum hypoleucum [Kudo & Sasaki in Ann. Rep. Taihoku Bot. Gard. 1: 26 (1931), nom. nud.] Ohwi in Acta Phytotax. Geobot. 7: 130 (1938).

Aconogonon hypoleucum (Ohwi) Soják in Preslia 46: 151 (1974), com auct. epith. Kudo & Sasaki.

Polygonum multiflorum var. *hypoleucum* (Ohwi) Tang S. Liu, S. S. Ying & M. J. Lai, Fl.

Taiwan **2**: 274 (1976); Kuo et al. in Fl. Taiwan 2nd ed. **2**: 309 (1996).

Distr. Taiwan.

Fallopia sachalinensis (F. Schmidt) Ronse Decraene in Ronse Decraene & Akeroyd Bot. J. Linn. Soc. **98**: 369 (1988).

Polygonum sachalinense F. Schmidt in Maxim., Mém. Acad. Sci. St.-Pétersb. **9**: 233 (1859); Ohwi, Fl. Jap. 474 (1953); Kitamura & Murata, Col. Ill. Herb. Pl. Jap. (Choripet.) **316** (1961).

Reynoutria sachalinensis (F. Schmidt) Nakai [Rep. Veg. Dagelet Isl. 18 (1919), comb. nud.; Mori, Enum. Pl. Cor. 135 (1922), comb. nud.] in Rigakkai **24**: 293 (1926); Miyabe & Kudo in J. Fac. Agr. Hokkaido Imp. Univ. **26**(4): 505 (1934); Kitagawa in Satake et al. (ed.) Wild Fl. Jap. **2**: 24 (1982), cum auct. epith. Nakai.

var. **intermedia** (Tatewaki) Yonekura & H. Ohashi, comb. nov.

Polygonum sachalinense var. *intermedium* Tatewaki in Res. Rep. Exp. For. Hokkaido Imp. Univ. **7**: 190 (1932).

Reynoutria sachalinensis var. *intermedia* (Tatewaki) Tatewaki ex Miyabe & Kudo in J. Fac. Agr. Hokkaido Imp. Univ. **26**(4): 505 (1934).

Distr. N. Hokkaido.

Persicaria cliopolitana (Hance) Yonekura & H. Ohashi, comb. nov.

Polygonum cliopolitanum Hance in Ann. Sci. Nat. V. **5**: 238 (1866).

Distr. Central to S. China.

Persicaria jucunda (Meisn.) Yonekura & H. Ohashi, comb. nov.

Polygonum jucundum Meisn., Monogr. Gen. Polyg. Prodr. 71 (1826).

Distr. Central to S. China.

Persicaria limicola (Sam.) Yonekura & H. Ohashi, comb. nov.

Polygonum limicola Sam. in Hand.-Mazz. Symb. Sin. **2**: 178 (1929).

Distr. SW. China.

Persicaria palmata (Dunn) Yonekura & H. Ohashi, comb. nov.

Polygonum palmatum Dunn in Kew Bull. **1942**: 341 (1912).

Polygonum pseudopalmatum Hoo in Acta Phytotax. Sin. **1**: 193 (1951).

Distr. Assam to S. China.

Persicaria posumbu (Buch.-Ham. ex D. Don) H. Gross in Engl. Bot. Jahrb. **19**: 313 (1913).

Polygonum posumbu Buch.-Ham. ex D. Don, Prodr. Fl. Nepal. 71 (1825); Kitamura & Murata, Col. Ill. Herb. Pl. Jap. (Choripet.) 53rd ed. 311 (1984).

Polygonum caespitosum Blume, Bijdr. 532 (1825); Steward in Contr. Gray Herb. Harvard Univ. **88**: 66 (1930).

Polygonum caespitosum γ. (var.) *laxiflorum* Meisn. in Miquel, Ann. Mus. Bot. Lugd.-Bat. **2**: 57 (1865); Ohwi, Fl. Jap. 471 (1953).

Persicaria posumbu var. *laxiflora* (Meisn.) H. Hara, Fl. E. Himal. 634, in adnot. (1966).

Polygonum yokusaianum Makino in Bot. Mag. Tokyo **28**: 116 (1914).

Polygonum caespitosum subsp. *yokusaianum* (Makino) Danser in Bull. Jard. Bot. Buitenzorg **3**(8): 151 (1927); Kitamura & Murata, Col. Ill. Herb. Pl. Jap. (Choripet.) 311 (1961).

Persicaria yokusaiana (Makino) Nakai in Rigakkai **24**: 301 (1926); Kitagawa in Satake et al. (ed.) Wild Fl. Jap. **2**: 23 (1982).

var. **stenophylla** (Makino) Yonekura & H. Ohashi, comb. nov.

Polygonum yokusaianum var. *stenophyllum* Makino in Bot. Mag. Tokyo **28**: 117 (1914).

Persicaria posumbu var. *laxiflora* form. *stenophylla* (Makino) H. Hara, Fl. E. Himal. 634, in adnot. (1966).

Polygonum posumbu var. *stenophyllum* (Makino) Murata in Acta Phytotax. Geobot. **32**: 50 (1981); Kitamura & Murata, Coll. Ill. Herb. Pl. Jap. (Choripet.) 53rd ed. 311 (1984).

Distr. Japan (Pacific Ocean Side) and S. Korea.

Persicaria senticosa (Meisn.) H. Gross in Loes. in Beih. Bot. Centralb. **37**(2): 113 (1919); Kitagawa in Satake et al., Wild Fl. Jap. **2**: 20 (1982).

Chylocalyx senticosus Meisn. in Miquel, Ann. Mus. Bot. Lugd.-Bat. **2**: 65 (1865).

Polygonum senticosum (Meisn.) Franch. & Sav., Enum. Pl. Jap. **1**: 401 (1875); Ohwi, Fl. Jap. 466 (1953); Kitamura & Murata, Coll. III. Herb. Pl. Jap. (Choripet.) 304 (1961).

var. *sagittifolia* (H. Léveillé & Vaniot) Yonekura & H. Ohashi, comb. nov.

Polygonum sagittifolium H. Léveillé & Vaniot in Bull. Géogr. Bot. **11**: 342 (1902).

Persicaria sagittifolia (H. Lévé. & Vaniot) H. Gross in Engl. Bot. Jahrb. **49**: 248 (1913), comb. nud.

Polygonum senticosum var. *sagittifolium* (H. Lévé. & Vaniot) C.-W. Park in Brittonia **38**: 218 (1986).

Distr. S. China.

Polygonum sagittifolium in S. China is closely related to *P. senticosum*, but differs in the shape of ochrea. We follow Park (1988) who regarded former as the variety of the latter.

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米倉浩司, 大橋広好: 東アジア産タデ属 (広義) 植物に関する新組合せ

タデ属 *Polygonum* L. を一つの属として扱う見解と外部形態上の多様性に基づいていくつかのより小さい属に細分する見解とがある。近年の研究 (Haraldson 1978, Ronse Decraene and Akerod 1988) によって、広義のタデ属は異なる2または3の連に属する植物の寄せ集めであることが明らかとなり、1つの属にまとめられるべきではないことが主張されている。本論文では今まで東アジア産植物に適用されてきた様々な体系について比較するとともに、東アジア産タデ類の学名を扱う上において特に問題となる *Persicaria* 属と *Fallopia* 属の範囲について検討し、近年の研究結果に基づき論議した。

その結論に基づきこの属を分割する立場に立った上で、東アジア産のいくつかの種について学名の組み替えを行った。

日本産の種については、ハチジョウイタドリ *Fallopia japonica* var. *hachidyoensis* (Honda) Yonekura & H. Ohashi, ケイタドリ *F. japonica* var. *uzenensis* (Honda) Yonekura & H. Ohashi, エゾイタドリ *Fallopia sachalinensis* var. *intermedia* (Tatewaki) Yonekura & H. Ohashi, ホソバハナタデ *Persicaria posumbu* var. *stenophylla* (Makino) Yonekura & H. Ohashi の2変種について新組合せを発表した。

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