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Two new species of *Sedum* (Crassulaceae) from Guangdong, China*

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Abstract: Two new species of Crassulaceae, *Sedum baiwanense* Yan S. Huang & Q. Fan and *S. nankunshanense* Yan S. Huang & Q. Fan, from Guangdong, China, are described and illustrated here. Phylogenetic analysis based on the internal transcribed spacer (ITS) region of nrDNA suggests that the two new species belong to *Acre* Clade, and are relative to *S.subtile* Miq., *S.tianmushanens*e Y.C.Ho & F. Chai, and *S. jiulungshanense* Y.C.Ho with high support values (node posterior probabilities = 1). With high morphologically differences, we can easily distinguish species in this monophyletic group.

Key words: *Sedum*; new species; Guangdong Province; phylogeny; ITS sequence

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The genus *Sedum*, established in 1753 (Linnaeus, 1753), is known for its extensive diversity and complex taxonomy within the Crassulaceae family. Characterized by fleshy stems, small flowers, and a wide variety of leaf forms, *Sedum* species are hard to identify, especially when dealing with dried specimens whose leaves tend to detach (Jin et al. , 2010). There are about 470 recognized *Sedum* species, mostly located in the northern hemisphere, with some species in the southern regions of Africa and Latin America (Thiede et al. , 2007). These species thrive in diverse habitats, including rocky terrains, sandy areas, meadows, cliffs, and forests (Zhu et al. , 2023).

During the past 20 years, numerous *Sedum* species have been newly described from China, including *S. hoi* X. F. Jin & B. Y. Ding (Wang et al. , 2005), *S. plumbizincicola* X. H. Guo & S. B. Zhou (Wu et al. , 2013), *S. fanjingshanense* C. D. Yang & X. Y. Wang (Yang et al. , 2012), *S. kuntsunianum* X. F. Jin, S. H. Jin & B. Y. Ding (Jin et al. , 2013), *S. taro-*

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koense H. W. Lin & J. C. Wang (Lu et al. , 2013), *S. spiralifolium* D. Q. Wang, D. M. Xie & L. Q. Huang (Xie et al. , 2014), *S. kwanwuense* H. W. Lin, J. C. Wang & C. T. Lu and *S. taiwanalpinum* H. W. Lin, J. C. Wang & C. T. Lu (Lu et al. , 2019), *S. ichangensis* Y. B. Wang (Wang et al. , 2019), *S. lipingense* R. B. Zhang, D. Tan & R. X. Wei (Zhang et al. , 2019), *S. nanlingense* Yan Liu & C. Y. Zou (Zou et al. , 2020), *S. cirenianum* S. S. Ying, *S. shaoakouense* S. S. Ying and *S. shengkuangense* S. S. Ying (Ying et al. , 2022b), *S. parviflorum* S. S. Ying and *S. tachingshuianum* S. S. Ying (Ying et al. , 2022a), *S. jinglanii* Yan S. Huang & Q. Fan (Huang et al. , 2023), *S. danxiacola* S. Y. Meng & B. Chen (Meng et al. , 2023), *S. yangjifengensis* B. Chen & Z. W. Zhu (Zhu et al. , 2023), *S. xunvense* Yue L. Xu & P. Li (Chai et al. , 2024), *S. simingshanense* Y. L. Xu (She et al. , 2025b), *S. guangxiense* Yan Liu & C. Y. Zou (Zou et al. , 2025), *S. orientalichinense* Q. Fan & P. Li (Dai et al. , 2025), and *S. yongkangense* Y. L. Xu et Z. H. Chen (She et al. , 2025a). China is home to 168 *Sedum* species, with 103 being endemic (Fu et al. , 1984; Fu et al. , 2001). Despite *Sedum* being the most species-rich genus in the Crassulaceae family, it is polyphyletic. Reclassifying *Sedum* to be monophyletic would increase the number of species to around 755 by incorporating all 14 genera in tribe *Sedeae* (Messerschmid et al. , 2020).

In China, *Sedum* is divided into three sections: *S.* sect. *Sedum*, *S.* sect. *Oreades* (Fröderström) K. T. Fu, and *S.* sect. *Filipes* (Fröderström) S. H. Fu. These sections can be differentiated by features such as carpels, follicles, leaf bases, and petal colors (Fu et al. , 2001). Molecular studies have confirmed the polyphyletic nature of *Sedum*, with species distributed across four major clades of the crassulacean tree: *Acre*, *Aeonium*, *Leucosedum*, and *Sempervivum*. There is ongoing debate among experts regarding the infrageneric structure of *Sedum* (Nikulin et al. , 2016).

During field studies in Nankunshan and Baiwan, Guangdong Province, China, 2 new *Sedum* species with rosetted basal leaves was discovered. After years of observation, literature review, and molecular analysis, the species have been identified as new to science and are described in this study.

1 Materials and methods

1. 1 Samples collection and field surveys

Field investigations and observations were conducted during the flowering and fruiting periods of the putative new species in Baiwan and Nankunshan, Guangdong, China. 3 specimens of *S. baiwanense* were selected for molecular analysis and there is only 1 specimen of *S. nankunshanense* due to all the living individuals were found on the same stone.

1. 2 DNA extraction, sequencing and phylogenetic analysis

Total DNA was extracted using the modified CTAB method (Doyle et al. , 1987). The region of the partial internal transcribed spacer 1, 5. 8S ribosomal RNA gene and partial internal transcribed spacer 2 was amplified using primers ITS1 and ITS4 (White et al. , 1990). PCR amplifications were performed following previous studies (Huang et al. , 2021; Wang et al. , 2022). In order to explore the phylogenetic position of the putative new species in *Sedum*, ITS sequences of 66 accessions of *Sedum* and three outgroup species (*Aeonium lancerottense* Praeger, *Aeonium viscatum* Webb ex Bolle), and *Greenovia aizoon* Bolle were downloaded from the Genbank public database at the National Center for Biotechnology Information(NCBI)(Supply:Appendix table 1). The sequences were aligned using CLUSTALW 1. 8 (Thompson et al. , 1994) and then adjusted manually. Besides, to improve the credibility, we also aligned the sequences using MAFFT v. 7. 402 (Katoh et al. , 2013), and the alignments generated from the two methods were consistent. The best-fit nucleotide substitution model was determined by ModelFinder (Kalyaanamoorthy et al. , 2017). Based on the Bayesiam Inference method, the phylogenetic tree was constructed using MrBayes 3. 2. 7(Ronquist et al. , 2012) by GTR model.

2 Results and Discussion

This study focuses on two potentially new species,

Sedum baiwanense and *S. nankunshanense*, which are distinguished from three closely related species, *S. subtile* Miq. , *S. tianmushanense* Y. C. Ho & F. Chai, and *S. jiulungshanense* Y. C. Ho, by distinct morphological characteristics (Table 1) and molecular evidences. Together, these five species formed a well-supported monophyletic group, clustering with high confidence within their own species clades, each supported by posterior probabilities of 1 (Fig. 1). The final aligned length of the ITS matrix was 733 base pairs (bp), with the proportion of missing data at approximately 19. 07%. The analysis conducted on ITS sequences provided valuable insights into the phylogenetic relationships within the genus *Sedum*, and the strong support indicates that the clades are distinct and phylogenetically reliable.

Table 1　Morphological comparisons between *Sedum subtile*, *S. tianmushanense*, *S. jiulungshanense*, *S. nankunshanense*, and *S. baiwanense*

Character	*Sedum baiwanense*	*S. nankunshanense*	*S. subtile*	*S. jiulungshanense*	*S. tianmushanense*
Basal leaf shape & size / mm	Obovate, apex blunt, (9. 5−11)×(4. 4−6. 5)	Obovate, apex truncate, (3. 2−4. 6)×(2. 6−3. 0)	Broadly linear, apex acuminate, (5−20)×(2−3)	Obovate, obtuse or emarginate, (4−8)×(1. 5−3)	Linear or linear-lanceolate, apex obtuse, (3−15)×2
Phyllotaxy	Opposite or alternate, 3−5 leaves	Opposite or alternate, 3−5 leaves	Opposite	Opposite or alternate, 3 leaves	Alternate
Flowering stem height /cm	4. 7−5. 7	1. 0−2. 8	5−10	8−10	5−12
Petal length / mm	ca. 5	6. 8−7. 9	4. 5−6	5−6	4
Nectar scale length /mm	0. 4	1. 7	0. 5	0. 6	0. 5

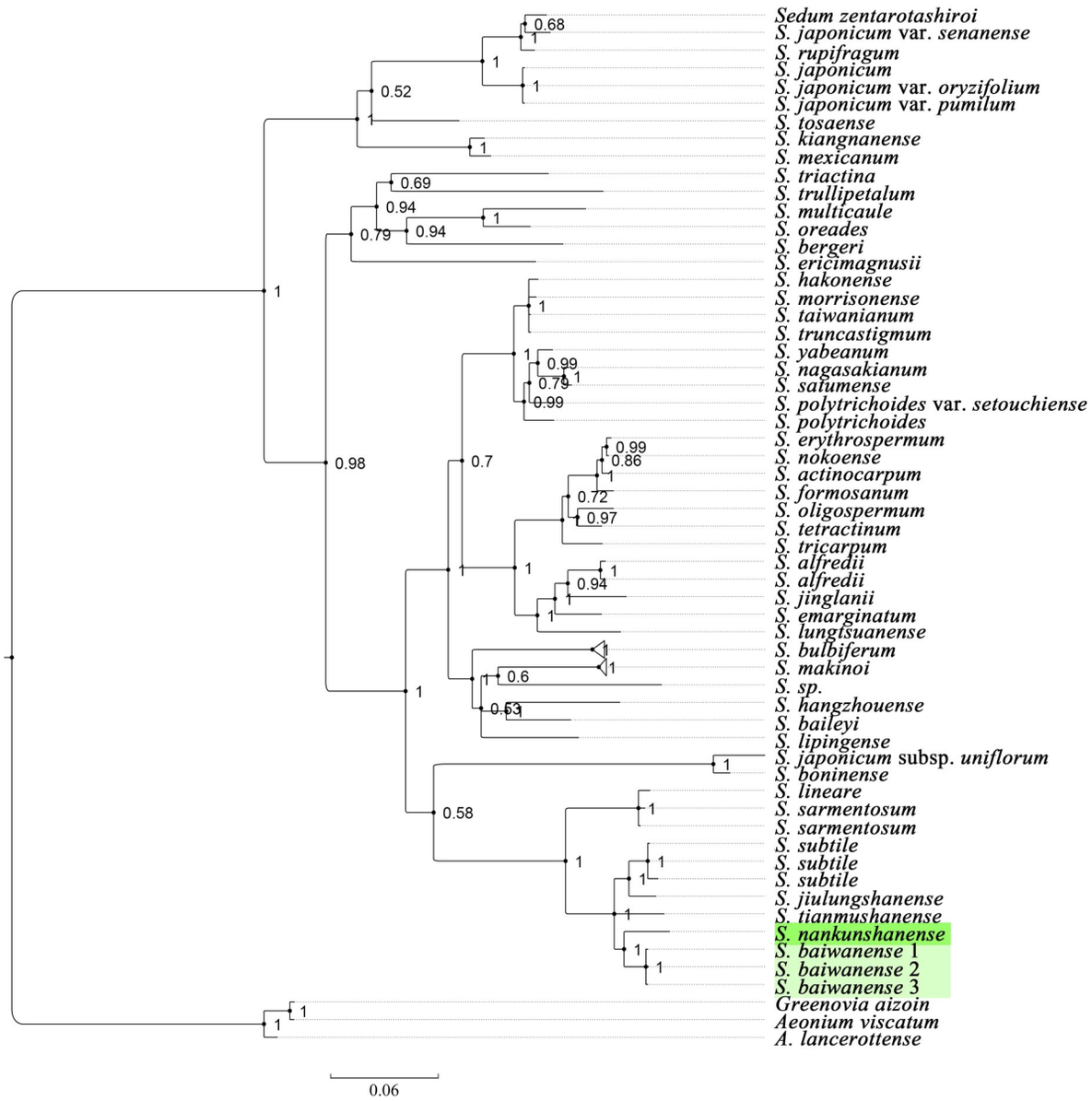
Interestingly, samples of *S. subtile* collected from a range of geographic locations also formed a monophyletic clade with a posterior probability of 1 (Fig. 1). This cohesion within *S. subtile*, despite the geographic diversity of the samples, reflects a strong genetic consistency across populations of this species. Additionally, the *S. subtile* clade was positioned as a sister group to the clade containing *S. baiwanense*, *S. nankunshanense*, *S. tianmushanense*, and *S. jiulungshanense*. This phylogenetic structure provides evidence that *S. subtile* shares a recent common ancestry with these other East Asian species and that they together represent a distinct lineage within the genus *Sedum*.

This phylogenetic arrangement offers new insights into the evolutionary history and diversification patterns within *Sedum*, specifically within East Asia. The monophyletic clustering of East Asian species supports the hypothesis that a significant radiation event likely occurred within this region. Such radiation events, where a lineage diversifies rapidly, often indicate ecological or evolutionary opportunities in the region, such as the availability of distinct ecological niches, climate adaptations, or geographic isolations that fostered speciation. This diversification within East Asia is consistent with theories suggesting that the Acre clade within *Sedum* may have originated in this region, later spreading to other continents. This idea has been proposed in previous studies, which postulate that East Asia served as a center of origin for the Acre clade, with subsequent dispersal events leading to its presence in Europe and North America (Carrillo-Reyes et al. , 2009).

3　Taxonomic treatments

***Sedum baiwanense* Yan S. Huang & Q. Fan** (Fig. 2, 3a)

1) Type: China. Guangdong: Qingyuan City, Qingxin District, Baiwan Nature Reserve, on rocks, 112. 79°N, 24. 22°E, 461 m a. s. l. , 1st. April. 2024, Y. S. Huang 24040101 (holotype: SYS00236972).



Sedum nankunshanense is represented in dark green, and *S. baiwanense* is represented in light green .

Fig. 1 Bayesian phylogenetic tree of the new species and related species, with posterior probabilities (PP) shown at the nodes

2) Diagnosis: It differs from *Sedum subtile* by its larger obovate leaves [(9. 5−11) × (4. 4−6. 5) mm *vs*. (5−20) × (2−3) mm] with a blunt apex and shorter flowering stems [(4. 7−5. 7) cm *vs*. (5−10) cm].

3) Description: Fleshy herbs, perennial; during the non-flowering season, basal leaves form a rosette; sterile stems height 2−3 cm; stolons short, densely grow laterally, with rosette leaves at the tips; leaves obovate, apex blunt, petiolate at the base, 9. 5−11 mm long, 4. 4−6. 5 mm wide. Reproductive branches emerge from the center of basal leaves, with 3−7 branches. Flowering stem 4. 7−5. 7 cm tall; leaves opposite or alternate of 3−5. Leaves on the lower part of the flower stem obovate, petiolate at the base, apex obtuse, 6. 9−8. 7 mm long, 2. 6−3. 0 mm wide; leaves on the upper part of the flowering stem lanceolate, apex obtuse, 6. 7−14. 5 mm long, 2. 0−2. 7 mm wide. Inflorescence cymose, with 2−3 branches, each bearing 3 to several flowers. Bracts linear; sepals 5, narrow lanceolate to wide linear, 3−5 mm long, unequal in length, apex blunt, base shortly spurred. Petals 5, yellow, broadly lanceolate, ca. 5 mm long, apex acuminate. Stamens 10; antesepalous ones 3. 5 mm, antepetalous ones slightly above the base, 2. 4 mm;

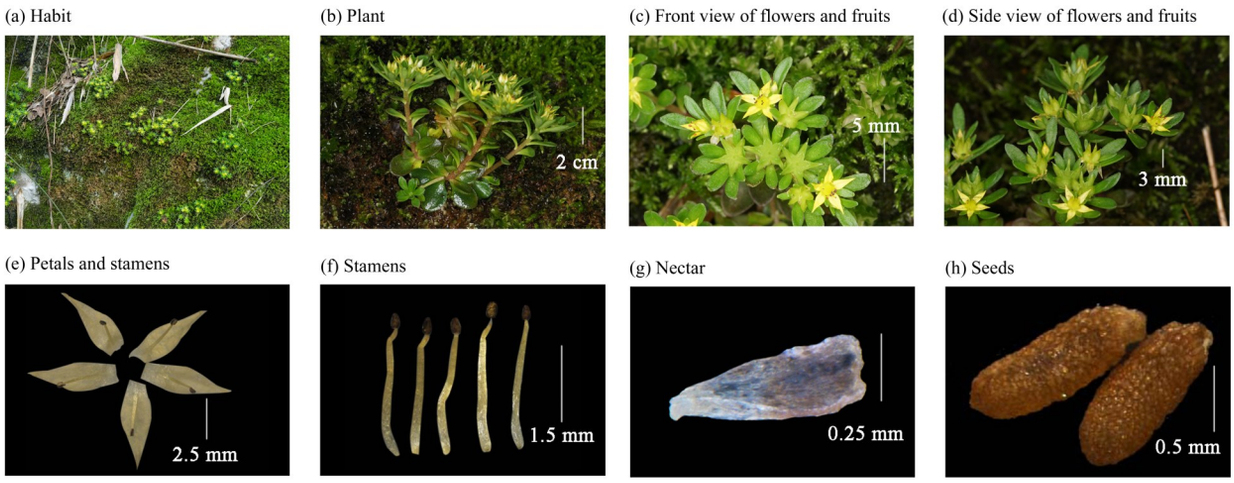


Fig. 2　Morphological characteristics of *Sedum baiwanense* sp. nov.

anthers brownish red, long ellipsoid. Nectar scales 5, rectangular, 0. 4 mm long, 0. 2 mm wide, apex truncate. Carpels 5, erect, lanceolate, base fused for 2 mm, total length 5 mm; styles slender, 0. 2 mm long. Follicles mature, spreading stellately. Seeds mature, oblong, brown, densely papillate, 0. 8 mm long.

4) Phenology: Flowering from April to May. Fruiting from May to June.

5) Etymology: The specific epithet refers to the type locality of the new species.

6) Vernacular name: We propose a Chinese name, Bái Wān Jǐng Tiān (白湾景天), to reflect the type locality of the new species.

7) Distribution and habitat: *Sedum baiwanemse* is currently known only from the type locality, Baiwan Nature Reserve, Guangdong Province, China. The species grows on rocks and in rocky crevices of Karst landscape at altitudes of 300−500 m a. s. l.

8) Conservation status: Due to no subpopulations with more than 250 mature individuals and only found in the type locality, *Sedum baiwanemse* should be considered as Endangered (EN) according to the IUCN Red List Criteria (C2a; IUCN 2024).

***Sedum nankunshanense* Yan S. Huang & Q. Fan** (Fig. 3b, 4)

1) Type: China. Guangdong: Longmen County, Nankunshan Nature Reserve, on rocks, 113. 83° E, 23. 66° N, 995 m a. s. l. , 29th. Mar. 2024, Y. S. Huang 24032901 (holotype: SYS00236970; isotype: SYS00236971).

2) Diagnosis: It differs from *Sedum subtile* and other relative species by its smallest obovate leaves [(3. 2−4. 6)×(2. 6−3. 0) mm] and the shortest flowering stem (1. 0−2. 8 cm).

3) Description: Fleshy herbs, perennial; during the non-flowering season, basal leaves form a rosette; sterile stems height ca. 1 cm; stolons grow laterally, 6. 5−10. 7 mm, with rosette leaves at the tips; leaves obovate, apex truncate, petiolate at the base, 3. 2−4. 6 mm long, 2. 6−3. 0 mm wide. Flowering stems emerge from the center of basal leaves. Flowering stem 1. 0−2. 8 cm tall; leaves opposite or alternate of 3−5. Leaves with petiolate on the lower part of the flower stem obovate, apex obtuse, 4. 1−4. 9 mm long, 4. 8−5. 5 mm wide; leaves on the upper part of the flowering stem oblong to lanceolate, apex obtuse, 6. 7−6. 9 mm long, 0. 60−1. 3 mm wide. Inflorescence cymose, with 2−3 branches, each bearing 3 to several flowers. Bracts linear; sepals 5, narrowly oblong, ca. 2. 5 mm long, unequal in length, apex obtuse, Petals 5, yellow, broadly lanceolate, 6. 8−7. 9 mm long, apex acuminate. Stamens 10; antesepalous ones 4−4. 2 mm, antepetalous ones slightly above the base, ca 3. 1 mm; anthers brownish d, long ellipsoid. Nectar scales 5, Oblong-obovate, 1. 7 mm long, 0. 65 mm wide, apex truncate. Carpels, erect, lanceolate, base fused for 2 mm, total length 6−7 mm; styles slender, 0. 2 mm long. Follicles mature, spreading stellately. Seeds mature, oblong, densely papillate, 0. 7 mm long.

4) Phenology: Flowering from April to May.

Fig. 3 Type specimens of the new species and *Sedum subtile*

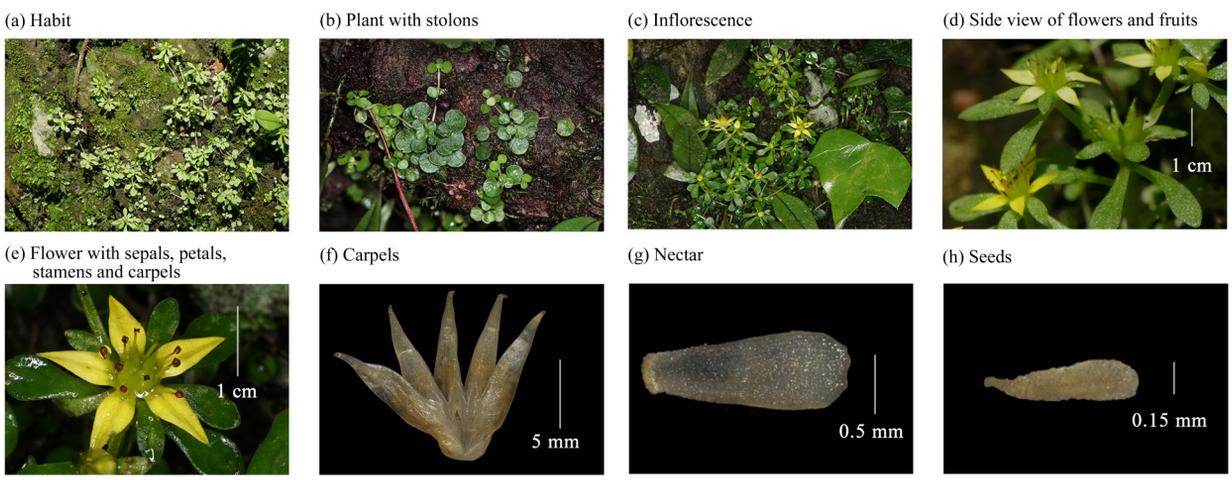


Fig. 4 Morphological characteristics of *Sedum nankunshanense* sp. nov.

Fruiting from May to June.

5) Etymology: The specific epithet refers to the type locality of the new species.

6) Vernacular name: We propose a Chinese name, Nán Kūn Shān Jǐng Tiān (南昆山景天), to reflect the type locality of the new species.

7) Distribution and habitat: *Sedum nankunshanense* is currently known only from the type locality, Nankunshan Provincial Nature Reserve, Guangdong Province, China. The species grows on rocks at altitudes of 800 m a. s. l.

8) Conservation status: The species has fewer than 50 mature individuals and has only been repeatedly recorded from a single rock, thus being classified as Critically Endangered (CR) under IUCN Red List Criteria (D, B1a; IUCN 2024).

References:

CARRILLO-REYES P, SOSA V, MORT M E, 2009. Molecular phylogeny of the acre clade (Crassulaceae): Dealing with the lack of definitions for *Echeveria* and *Sedum*[J]. Mol Phylogenet Evol, 53(1): 267–276.

CHAI M L, WU Y M, ZHANG Y, et al, 2024. *Sedum xunvense*, a new species from southeast China [J]. Phytotaxa, 644(4): 258–270.

DAI J M, XIONG Y, LI P, et al, 2025. A new species of *Sedum* (Crassulaceae) from Eastern China based on morphological and molecular evidence [J]. PhytoKeys,

253：271−285.

DOYLE J J，DOYLE J L，1987. A rapid DNA isolation procedure for small quantities of fresh leaf tissue［J］. Phytochem Bull，19：11−15.

FU K T，OHBA H，2001. Crassulaceae［C］//WU Z Y，et al. Flora of China，Vol. 8. Beijing：Science Press，St. Louis：Missouri Botanical Garden Press：202−268.

FU S H，FU K T，1984. *Sedum*［C］//FU S H，et al. Flora reipublicae popularis Sinicae，Vol. 34. Beijing：Science Press：31−220.

HUANG Y S，KANG N，ZHONG X J，et al，2021. A new species of *Viola*（Violaceae）from Guangdong Province，China［J］. PhytoKeys，176：67−76.

HUANG Y S，MENG K K，SUN Y Y，et al，2023. A new species of *Sedum*（Crassulaceae）from mount Danxia in Guangdong，China［J］. PhytoKeys，221：117−129.

JIN S H，ZHOU Y Y，DING B Y，et al，2013. *Sedum kuntsunianum*（Crassulaceae：Sedoideae），a new species from southern Zhejiang，China［J］. Phytotaxa，105（2）：33.

JIN X F，ZHANG H W，XIE J B，et al，2010. Taxonomic notes on *Sedum* s. str.（Crassulaceae）from Zhejiang Province，China［J］. Hangzhou Norm Univ（Nat Sci Ed），9：165−171.

KALYAANAMOORTHY S，MINH B Q，WONG T K F，et al，2017. ModelFinder：Fast model selection for accurate phylogenetic estimates［J］. Nat Methods，14（6）：587−589.

KATOH K，STANDLEY D M，2013. MAFFT multiple sequence alignment software version 7：Improvements in performance and usability［J］. Mol Biol Evol，30（4）：772−780.

LINNAEUS C，1753. Decandria Pentagynia［M］//LINNAEUS C. Species plantarum，Vol. 1：430.

LU C，LIN H，LIOU W，et al，2013. *Sedum tarokoense*（Crassulaceae），a new species from a limestone area in Taiwan［J］. Bot Stud，54（1）：57.

LU C，LIN H，WANG J，2019. Two new species of *Sedum*（Crassulaceae）from Taiwan［J］. Taiwania，64（4）：426−431.

MESSERSCHMID T F E，KLEIN J T，KADEREIT G，et al，2020. Linnaeus's folly−phylogeny，evolution and classification of *Sedum*（Crassulaceae）and Crassulaceae subfamily Sempervivoideae［J］. Taxon，69（5）：892−926.

MENG S Y，CHEN B，SODMERGEN，2023. *Sedum danxiacola*（Crassulaceae），an endemic new species from the Danxia landform，China［J］. Kew Bull，78（4）：673−681.

NIKULIN V Y，GONTCHAROVA S B，STEPHENSON R，et al，2016. Phylogenetic relationships between *Sedum* L. and related Genera（Crassulaceae）based on ITS rDNA sequence comparisons［J］. Flora，224：218−229.

RONQUIST F，TESLENKO M，van der MARK P，et al.，2012. MrBayes 3.2：Efficient bayesian phylogenetic inference and model choice across a large model space［J］. Syst Biol，61（3）：539−42.

SHE S Q，LI J P，XIE W Y，et al，2025a. *Sedum yongkangense*（Crassulaceae），a new species from eastern China［J］. Taxonomy，5（1）：15−22.

SHE S Q，ZHANG Y，ZHOU X，et al，2025b. *Sedum simingshanense*（Crassulaceae），a new species from Zhejiang，East China［J］. PhytoKeys，251：23−35.

THIEDE J，EGLI U，2007. Crassulaceae［C］//KUBITZKI K. The Families and Genera of vascular plants，Vol. 9：Flowering plants eudicots. Berlin：Springer：83−118.

THOMPSON J D，HIGGINS D G，GIBSON T J，1994. CLUSTALW：Improving the sensitivity of progressive multiple sequence alignment through sequence weighting，position−specific gap penalties and weight matrix choice［J］. Nucleic Acids Res，22（22）：4673−80.

WANG H，SONG X J，LIU Q W，2005. *Sedum hoi*，a new species of the Crassulaceae from Zhejiang，China［J］. Acta Bot Yunnan，27：381−382.

WANG H W，DAI J M，CHEN Z X，et al，2022. *Selaginella orientali-chinensis*，a new resurrection spikemoss species fromsoutheastern China based on morphological andmolecular evidences［J］. Acta Scientiarum Naturalium Universitatis Sunyatseni，61（2）：57−64.

WANG Y B，XIONG X J，2019. *Sedum ichangensis*，a new species of Crassulaceae from Hubei，China［J］. PhytoKeys，132：91−98.

WHITE T J，BRUNS T，LEE S，et al，1990. Amplification and direct sequencing of fungal ribosomal RNA genes for phylogenetics［M］//PCR Protocols. Amsterdam：Elsevier：315−322.

WU L H，LIU Y J，ZHOU S B，et al，2013. *Sedum plumbizincicola* X. H. Guo et S. B. Zhou ex L. H. wu（Crassulaceae）：A new species from Zhejiang Province，China［J］. Plant Syst Evol，299（3）：487−498.

XIE D M，PENG D Y，FANG C W，et al，2014. *Sedum spiralifolium*（Crassulaceae）：A new species from Anhui Province，China［J］. Phytotaxa，183（3）：171.

YANG C D，WANG X Y，GOU G Q，2012. *Sedum fanjingshanensis* C. D. Yang et X. Y. Wang：A new species of *Sedum* L.［J］. Bull Bot Res，32：389−391.

YING S S, 2022a. Four new species of genus *Sedum* (Crassulaceae) from Taiwan[J]. New Taxa New Names, 4: 87-112.

YING S S, 2022b. Two new species of genus *Sedum* (Crassulaceae) from Taiwan[J]. New Taxa New Names, 5: 39-49.

ZHANG R B, DENG T, DOU Q L, et al, 2019. *Sedum lipingense* (Crassulaceae) identifying a new stonecrop species in SE Guizhou, China, based on morphological and molecular evidence[J]. PhytoKeys, 134: 125-133.

ZHU Z W, LE X G, LI L F, et al, 2023. *Sedum yangjifengensis* (Crassulaceae), a new species from Jiangxi, China[J]. Phytotaxa, 607(1): 105-113.

ZOU C, MENG S, LU Z, et al, 2020. *Sedum nanlingense* (Crassulaceae), a new species from Guangxi, China[J]. Phytotaxa, 447(3): 176-184.

ZOU C, MENG T, MENG S, et al, 2025. A new species of *Sedum* (Crassulaceae, saxifragineae) from Guangxi, China[J]. PhytoKeys, 252: 287-299.

广东景天属(景天科)二新种

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摘要：报道了产自广东省的景天科(Crassulaceae)景天属(*Sedum*) 2个新种：白湾景天(*Sedum baiwanense* Yan S. Huang & Q. Fan)和南昆山景天(*Sedum nankunshanense* Yan S. Huang & Q. Fan)。通过形态学比较及nrDNA ITS区序列的系统发育分析，确认二者属于*Acre*分枝，与细小景天(*S. subtile* Miq.)、天目山景天(*S. tianmushanense* Y.C.Ho & F.Chai)及九龙山景天(*S. jiulungshanense* Y.C.Ho)构成高支持率的单系姐妹群(节点后验概率=1)。该单系群内物种具显著形态差异，支持其独立分类地位。本研究为广东省植物多样性及景天属系统演化研究提供了关键资料。

关键词：景天属；新种；广东省；系统发育；ITS序列

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