

**Classification and nomenclature of species in the genus *Acinetobacter***

Validly published and correct species name ( <i>n</i> =85)	Former (provisional) designation	Reference	Cultured from*
<i>A. albensis</i>	Taxon 31**	Krizova et al. 2015b	Soil, water
<i>A. amyseii</i>	Taxon 36**	Nemec et al. 2022b	Soil, water, animals
<i>A. apis</i> †		Kim et al. 2014	<i>Apis mellifera</i>
<i>A. baretiaee</i>		Alvarez-Perez et al. 2021	<i>Apis mellifera</i>
<i>A. baumannii</i>	Genomic sp. 2	Bouvet & Grimont 1986	Human, warm-blooded animals
<i>A. baylyi</i>		Carr et al. 2003	Activated sludge, soil
<i>A. beijerinckii</i>	Phenon 7**	Nemec et al. 2009	Human, animals, soil, water
<i>A. bereziniae</i>	Genomic sp. 10	Nemec et al. 2010, Bouvet & Grimont 1986	Human
<i>A. bohemicus</i>	Taxon 26	Krizova et al. 2014	Soil, water
<i>A. boissieri</i>		Álvarez-Pérez et al. 2013	Floral nectar
<i>A. bouvetii</i> †		Carr et al. 2003	Activated sludge
<i>A. brisouii</i> †		Anandham et al. 2010	Peat
<i>A. calcoaceticus</i>	Genomic sp. 1	Bouvet & Grimont 1986	Soil, water, human
<i>A. celticus</i>	Taxon 33	Radolfova-Krizova et al. 2016b	Soil, water
<i>A. chengduensis</i>		Qin et al. 2020	Hospital sewage
<i>A. chinensis</i>		Hu et al. 2019	Hospital sewage
<i>A. colistinresistens</i>	Genomic sp. 13BJ/14TU	Nemec et al. 2017, Bouvet & Jeanjean 1989	Human
<i>A. courvalinii</i>	Genomic sp. 14BJ	Nemec et al. 2016, Bouvet & Jeanjean 1989	Human, animals
<i>A. cumulans</i>		Qin et al. 2019	Hospital sewage
<i>A. defluvii</i> †		Hu et al. 2017	Hospital sewage
<i>A. dispersus</i>	Genomic sp. 17	Nemec et al. 2016, Bouvet & Jeanjean 1989	Soil, water, human
<i>A. entericus</i> †♣		Dong & Yang 2023	Zophobas atratus larvae gut
<i>A. equi</i>		Poppel et al. 2016	Horse
<i>A. faecalis</i> †		Chen et al. 2023	Elephant feces
<i>A. gandensis</i>	Taxon 30	Smet et al. 2014	Horse, cattle, water
<i>A. geminorum</i> †♦		Wolf et al. 2021	Human
<i>A. gernerii</i> †		Carr et al. 2003	Activated sludge
<i>A. guerrae</i>		Carvalho et al. 2020	Meat
<i>A. guillouiae</i>	Genomic sp. 11	Nemec et al. 2010, Bouvet & Grimont 1986	Soil, water, human
<i>A. gyllenbergii</i>	Phenon 3	Nemec et al. 2009	Human
<i>A. haemolyticus</i>	Genomic sp. 4	Bouvet & Grimont 1986	Human
<i>A. halotolerans</i> †		Dahal et al. 2017	Soil
<i>A. harbinensis</i> †		Li et al. 2014b	River water
<i>A. higginsii</i>	Genomic sp. 16	Nemec et al. 2023	Human
<i>A. ihumii</i> †		Yacouba et al. 2022	Human
<i>A. indicus</i> †		Malhotra et al. 2012	Soil
<i>A. johnsonii</i>	Genomic sp. 7	Bouvet & Grimont 1986	Soil, water, human, animals
<i>A. junii</i>	Genomic sp. 5	Bouvet & Grimont 1986	Human, animals, water, soil
<i>A. kanungonis</i> †		Das et al. 2021	Pufferfish
<i>A. kookii</i>		Choi et al. 2013	Soil, water
<i>A. lactucae</i> †		Rooney et al. 2016	Lettuce
<i>A. lanii</i>		Zhu et al. 2021	Feces of <i>Equus kiang</i>
<i>A. larvae</i> †		Liu et al. 2017	Moth larval gut
<i>A. lwoffii</i>	Genomic sp. 9	Bouvet & Grimont 1986; Nemec et al. 2019	Human, animals, soil, water
<i>A. modestus</i>	Taxon 18	Nemec et al. 2016, Touchon et al. 2014	Human, water
<i>A. nectaris</i>		Alvarez-Perez et al. 2013	Floral nectar
<i>A. nematophilus</i> †		Machado et al. 2023	Nematode
<i>A. nosocomialis</i>	Genomic sp. 13TU	Nemec et al. 2011, Tjernberg & Ursing 1989	Human
<i>A. oleivorans</i> †¶		Kang et al. 2011	Soil
<i>A. parvus</i>	Phenon 4	Nemec et al. 2003	Human, animals
<i>A. pecorum</i>		Pallen et al. 2024; Gilroy et al. 2021	Feces of <i>Gallus gallus</i> and sheep
<i>A. piscicola</i> †		Liu et al. 2018	Fish
<i>A. pittii</i>	Genomic sp. 3	Nemec et al. 2011, Bouvet & Grimont 1986	Human, soil, water
<i>A. pollinis</i>		Alvarez-Perez et al. 2021	Floral nectar
<i>A. populi</i>		Li et al. 2015	Populus bark
<i>A. portensis</i>		Carvalho et al. 2020	Meat
<i>A. pragensis</i>	Taxon 28	Radolfova-Krizova et al. 2016a	Soil, water
<i>A. proteolyticus</i>	Taxon 19	Nemec et al. 2016, Touchon et al. 2014	Human
<i>A. pseudolwoffii</i>	Genomic sp. 8, Taxon 23	Bouvet & Grimont 1986; Nemec et al. 2019	Human, animals, soil, water
<i>A. puyangensis</i>		Li et al. 2013	Populus bark
<i>A. qingfengensis</i>		Li et al. 2014a	Populus bark
<i>A. radioresistens</i>	Genomic sp. 12	Nishimura et al. 1988, Bouvet & Grimont 1986	Human, soil, cotton
<i>A. rathckeae</i>		Alvarez-Perez et al. 2021	Floral nectar
<i>A. rudis</i>		Vaz-Moreira et al. 2011	Raw milk, wastewater
<i>A. schindleri</i>	Phenon 2	Nemec et al. 2001	Human, animals
<i>A. sedimenti</i>		Zheng et al. 2022	Beach sediment
<i>A. seifertii</i>	'Close to 13TU'	Nemec et al. 2015, Gerner-Smidt & Tjernberg 1993	Human
<i>A. shaoyimingii</i>		Zhu et al. 2021	Feces of <i>Equus kiang</i>
<i>A. sichuanensis</i> †		Qin et al. 2018	Hospital sewage
<i>A. silvestris</i>	Taxon 35	Nemec et al. 2022a	Forest soil, water
<i>A. soli</i> †		Kim et al. 2008	Human, soil
<i>A. stercoris</i> †		Pulami et al. 2021	Digestate of a biogas plant
<i>A. suaedae</i> †		Xu et al. 2024	Rhizosphere soil
<i>A. tandouii</i> †		Carr et al. 2003	Activated sludge, water, soil
<i>A. terrae</i>	Taxon 24A	Nemec et al. 2021	Soil, sheep feces
<i>A. terrestris</i>	Taxon 24B	Nemec et al. 2021	Soil, animal feces
<i>A. tibetensis</i> †		Pan et al. 2023	Soil
<i>A. tjernbergiae</i>		Carr et al. 2003	Activated sludge
<i>A. towneri</i>		Carr et al. 2003	Activated sludge, water, soil
<i>A. ursingii</i>	Phenon 1	Nemec et al. 2001	Human
<i>A. variabilis</i>	Genomic sp. 15TU	Krizova et al. 2015a	Human, animals, soil
<i>A. venetianus</i>		Vanechoutte et al. 2009, Di Cello et al. 1997	Salt water
<i>A. vivianii</i>	Taxon 20	Nemec et al. 2016, Touchon et al. 2014	Human, soil, water
<i>A. wanghuae</i>		Zhu et al. 2021	Feces of <i>Equus kiang</i>
<i>A. wuhouensis</i>		Hu et al. 2018	Hospital sewage

Classification and nomenclature of species in the genus *Acinetobacter* - continued

Validly published species name - a later synonym (n=4)	Former (provisional) designation	Reference	Cultured from*
<i>A. grimontii</i> † (= <i>A. junii</i> ) ‡		Carr et al. 2003, Vaneechoutte et al. 2008	Activated sludge
<i>A. dijkshoorniae</i> (= <i>A. lactucae</i> ) ‡	NB14	Cosgaya et al. 2016, Dunlap & Rooney 2017	Human, water
<i>A. guangdongensis</i> † (= <i>A. indicus</i> ) ‡		Feng et al. 2014a, Nemeč & Radolfova-Krizova 2017	Lead-zinc ore
<i>A. pakistanensis</i> † (= <i>A. bohemicus</i> ) ‡		Abbas et al. 2014, Nemeč & Radolfova-Krizova 2016	Wastewater
Effectively but not validly published species name nonsynonymous with a validly published name (n=6)		Reference	Cultured from*
' <i>A. kyonggiensis</i> ' †		Lee & Lee 2010	Sewage treatment plant
' <i>A. marinus</i> ' †		Yoon et al. 2007	Sea water
' <i>A. pullicarnis</i> ' †		Han et al. 2020	Chicken meat
' <i>A. rongchengensis</i> ' †		Qin et al. 2021	Hospital sewage
' <i>A. tianfuensis</i> ' †		Qin et al. 2021	Hospital sewage
' <i>A. thutiae</i> ' †		TuYet & Kim 2023	Soil
Effectively but not validly published species name synonymous with a validly published name (n=7)		Reference	Cultured from*
' <i>A. mesopotamicus</i> ' † (= <i>A. lwoffii</i> ) ‡		Acer et al. 2020, Nemeč 2021	Soil
' <i>A. oryzae</i> ' † (= <i>A. johnsonii</i> ) §		Chaudhary et al. 2012, Nemeč 2022	Rice
' <i>A. plantarum</i> ' † (= <i>A. junii</i> ) §		Du et al. 2016, Nemeč 2022	Wheat
' <i>A. pullorum</i> ' † (= <i>A. portensis</i> ) ‡		Elnar et al. 2020, Qin et al. 2021	Chicken meat
' <i>A. refrigeratoris</i> ' † (= <i>A. variabilis</i> ) §		Feng et al. 2014b, Nemeč 2022	Refrigerator
' <i>A. seohaensis</i> ' † (= <i>A. townneri</i> ) §		Yoon et al. 2007, Nemeč 2022	Sea water
' <i>A. septicus</i> ' † (= <i>A. ursingii</i> ) ‡		Kilic et al. 2008, Nemeč et al. 2008	Human
Tentative species designation including <i>Candidatus</i> names		Reference	Cultured from*/ sample (metagenome)
' <i>A. antiviralis</i> ' † #		Lee et al. 2009	Tobacco plant roots
' <i>Candidatus A. avistercoris</i> '		Gilroy et al. 2021	Feces of <i>Gallus gallus</i> (metagenome)
' <i>Candidatus A. pediculi</i> '		Boumbanda Koyo et al. 2019	<i>Pediculus humanus</i>
Genomic sp. 6		Bouvet & Grimont 1986	Human
Genomic sp. 15BJ		Bouvet & Jeanjean 1989	Human
Taxon 21 ♣		Touchon et al. 2014	Human
Taxon 22 ♣		Touchon et al. 2014	Human
Taxon 24C ♣		Nemeč et al. 2021	Soil, sheep feces
Taxon 24D ♣		Nemeč et al. 2021	Soil, water
Taxon 24E ♣		Nemeč et al. 2021	Soil, water
Taxon 25A, 25B, 27, 32, 34, 37–39 ♣		Nemeč & Radolfova-Krizova (unpublished)	Soil, water
Taxon 2221, 6053, 7209, 7384, 7454, 7458, 7506, 7509, 7517, 7564, 7579, 7593, 7655 ♣		Nemeč et al. (unpublished)	Cattle feces
Taxon 40–95 ♥		Qin et al. 2021	Miscellaneous

Notes

\* Based also on selected studies other than those included in the reference list.

† Species description based on only a single strain.

‡ The first name is a later heterotypic synonym of that shown in parentheses (applied for both validly and only effectively published names).

§ The first name is a synonym of that shown in parentheses as evidenced by whole-genome comparative analysis and comprehensive phenotypic testing (Nemeč & Radolfova-Krizova, unpublished).

¶ Strain '*A. oleivorans*' DR1 is closely related to two *A. calcoaceticus*-like strains described by Gerner-Smidt & Tjernberg (1993) (Touchon et al. 2014).

# An effectively published name for a patented organism with restricted availability.

♣ Taxon 21–39 and Taxon 2221–7655: designations of provisional taxa used in the Laboratory of Bacterial Genetics (Prague), which is based on the congruence of genotypic and phenotypic data for taxonomically novel groups (≥2 strains per group).

♥ Taxon 40–95: designations of single strains of groups of strains used by Qin et al. (2021) based on the rigorous application of a 96% ANI cutoff to define species boundaries. Some of these tentative taxa are conspecific with validly named species.

♦ Closely related to (and possibly conspecific with) *A. pittii*, having whole genome ANI against reference *A. pittii* strains as high as 95%.

♣ Closely related to (and possibly conspecific with) *A. bouvetii*, having whole genome ANI against the type strain of *A. bouvetii* as high as 95.2%.

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