Table Compare accuracies of identification of 12 insect species by 30 studies between 2018 and 2026.

1st Author Yr	*Tcas*	*Rdom*	*Cfer*	*Osur*	*Sory*	*Szea*	*Lser*	*Plodia*	*Cpus*	*Scer*	*Tcon*	*Ctur*	Avg.	No. Sp
Liu 2018 5					85.6	85.8							85.7	2
Shen 2018 3	96.9	93.8	87.3	79.9	95.3		72.9						87.7	6
Li 2019 C	92	90	92	89	96	96	94		92		92	92	92.5	10
Deng 2020 4	78.6	75.3	75.7	78.5						88.3			79.3	5
Li 2020 A	95.7	92.6	93.3	95.1	95.3	95.3	97		93.3		95.7	93.3	94.7	10
Shi 2020 5		93.7	87.3	89.3	86.4	84.6	91.1				88.9	83.2	88.1	8
Zhang 2020	92.5	100	100	97.7	83.4								94.7	5
Lyu 2021 AC6	95.8	97.9	94					97.5					96.3	4
Zhang 2021 C6		97		95	95	95			98	100			96.7	6
Chen 2022	95				100								97.5	2
Li 2022	93.3		76.6		87.9								85.9	3
Xu 2022	90		85.5	90.4	90.8		90.4						89.4	5
Yang 2022					92.6	88.1							90.4	2
Badgujar 2023a C	100	100	100	99.3	99.9								99.8	5
Chu 2023 A10	98	99	97.3	95.4	99.3			98.4					97.9	6
DuCong 2023	85.1	99.6	69.4	99.1		91.5		98.1					90.5	6
Mendoza 2023 C							90.6						90.6	1
Chen 2024 A8	95.4	99.6	98.8	95.6	98.3								97.5	5
Li 2024b C	85	91	97	94	97	97							93.5	6
Zhao 2024a AC13	96.4	89.1	90	91		97.4	84.8	98.3	86.3	81.8			90.6	9
Ge 2025 AC6	98.7		96.1		96.5								97.1	3
Serfa Juan 2025a C	99	98.6	98.4	98.8		98.5							98.7	5
Lu 2025 A4	86.1	93.8				98.8		98.7		99.5			95.4	5
Tian 2025 A12	91.3	95.9	93.3	93.5	96.3	96.3							94.4	6
Hou 2026 C	94.4	95.6			93.2								94.4	3
Li 2026b A9	91.9	91.3	91.6	91.4		93.9							92	5
Li 2026c A9	97.2	93.2	97.4	96.2	98.9		99.5	98.8					97.3	7
Sun 2026 A11	97.3	97.6				97.1		97.7		97.7			97.5	5
Yu 2026 AC	94	93	89	91		96			95		94		93.1	7
Zhao 2026 A9	95.6			89.2		95.3		98.3					94.6	4
Avg.	93.4	94.4	91	92.5	94.1	94.2	90	98.2	92.9	93.5	92.7	89.5		
TotObs	25	22	21	20	19	16	8	8	5	5	4	3		156
Species	*Tcas*	*Rdom*	*Cfer*	*Osur*	*Sory*	*Szea*	*Lser*	*Plodia*	*Cpus*	*Scer*	*Tcon*	*Ctur*	Avg.	No. Sp

In addition to 12 species in table, *Alphitobius diaperinus* 99.4% (Li 2026c), *Cynaeus angustus* 98.2% (Zhao 2024a), *Ephestia elutella* 92.4% (Zhao 2024a), *Gibbium aequinoctiale* 97.3% (Zhao 2024a), *Stegobium paniceum* 95.1% (Zhao 2026)*,Trogoderma variabile* 91.4% (Mendoza 2023) have also been studied. Li 2019 and Li 2020 did not identify *Cryptolestes, Sitophilus* and *Tribolium* to species and Li 2024b did not separate *S. oryzae* from *S. zeamais*. Studies have used ablation (A) to measure how much each component of model contributes, confusion matrix (C) to show whether AI is confusing one pest species with another, and comparisons of models (4-13) to show how much their own model improved accuracy.