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Cover: Emperor Tamarin *Saguinus imperator*: a look into a better world through the mustache lens – mixed media illustration. © Maya Santhanakrishnan.

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COMMUNICATION

Earthworm (Oligochaeta) diversity of Kumaun Himalaya with a new record of *Drawida japonica* (Michaelsen, 1892) (Monaligastridae) from Nainital, Uttarakhand, India

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Abstract: The present study was conducted to investigate earthworm diversity in the Kumaun region of Uttarakhand, India. Earthworm sampling was made from 1,409–2,224 m from the foothills of the Kumaun Himalaya to higher altitudes monthly from April 2019 to April 2021, covering the major monsoon season in India. Earthworms were collected from twelve different sites using the hand sorting method and preserved in 10% formalin. We recorded 14 earthworm species representing four families: Megascolecidae (*Amynthas corticis*, *Amynthas morrisi*, *Amynthas alexandri*, *Metaphire anomala*, *Metaphire houlleti*, *Metaphire birmanica*, & *Perionyx excavatus*); Lumbricidae (*Aporrectodea caliginosa trapezoides*, *Aporrectodea rosea rosea*, *Eisenia fetida*, *Octolasion tyrtaeum*, & *Dendrodrilus rubidus*); Moniligastridae (*Drawida japonica*); and Octochaetidae (*Eutyphoeus nainianus*). *Drawida japonica* from the family Moniligastridae is being reported for the first time from the Kumaun Himalaya. Moniligastrids are an important, yet often ignored, earthworm group commonly found in cultivated soils of higher altitudes.

Keywords: Annelida, Clitellata, cultivated soil, deposition, first record, high altitude, Kumaun Region, Lumbricidae, macrofauna, zoological collection number.

Hindi: सार: वर्तमान अध्ययन उत्तराखंड, भारत के कुमाऊं क्षेत्र में केंचुओ की विविधता की जांच के लिए किया गया था। भारतीय मानसून के प्रमुख मौसम को कवर करते हुए, 1,409–2,224 मीटर की कुमाऊं हिमालय की तलहटी से उच्च ऊंचाई तक, अप्रैल 2019 से अप्रैल 2021 तक मासिक रूप से केंचुओ की सैंपलिंग की गयी थी। केंचुओं को बारह विभिन्न स्थलों से हाथ से छांटने की विधि का उपयोग करके एकत्र किया गया और 10% फॉर्मेलिन में संरक्षित किया गया। हमने चार परिवारों का प्रतिनिधित्व करने वाली 14 केंचुओं की प्रजातियाँ खोजी: Megascolecidae (Amynthas corticis, Amynthas morrisi, Amynthas alexandri, Metaphire anomala, Metaphire houlleti, Metaphire birmanica, & Perionyx excavatus); Lumbricidae (Aporrectodea caliginosa trapezoides, Aporrectodea rosea rosea, Eisenia fetida, Octolasion tyrtaeum, & Dendrodrilus rubidus); Moniligastridae (Drawida japonica); और Octochaetidae (Eutyphoeus nainianus)। Moniligastridae परिवार से Drawida japonica को पहली बार कुमाऊं हिमालय से रिपोर्ट किया गया। Moniligastridae एक महत्वपूर्ण, लेकिन अक्सर अनदेखा किया गया केंचुआ समूह है जो आमतौर पर उच्च ऊंचाई वाले खेती वाली मिट्टी में पाया जाता है।

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INTRODUCTION

Earthworms act on soil structure and function via feeding, digging and excretion, thereby affecting farmland soil nutrients and microbial diversity, and many taxonomists have been drawn towards them McTavish et al. (2021). Indeed, Charles Darwin described earthworms as the most important animal group in the history of the world; Darwin (1881). The first record of earthworm fauna of the western Himalaya was given by Bourne (1889), who described *Typhoeus masoni* (syn. *Eutyphoeus orientalis*) from Dehradun (Uttarakhand, India). There are 3,000–7,000 known species of earthworms worldwide (Phillips et al. 2021) but at the same time Misiragloglu et al. (2023) stated that a total of ca. 5,738 species/subspecies (5,406 species and 332 unique subspecies; i.e., not counting the nomino-typical subspecies) belonging to 23 families (including one non-crassiclitellate family: Moniligastridae) are currently recognized worldwide, of which three families (Tritogeniidae and Kazimierzidae from southern Africa and Arecoidae, a new family from Brazil described herein), 35 genera and close to 1,200 new taxa (including subspecies) were described in the 21st century. Nonetheless, the large number of undescribed species will likely increase this value to well over 8,000 species, broadly divided into three ecological groups based on feeding and burrowing habits: litter-dwelling epigeic species, shallow-burrowing endogeic species, and deep-burrowing anecic species (Lee 1985; Shipitalo & Korucu 2002). In his 1972 seminal book 'Lombriciens de France', Marcel Bouché initially described seven earthworm ecological categories (anecic, endogeic, epigeic, epi-anecic, endo-anecic, epi-endogeic, and intermediate) (Bouché 1972).

Five years later, he simplified the explanation of these categories by describing a ternary plot in which the three major categories (anecic, endogeic and epigeic) represent the three poles (Bouché 1977). *Drawida japonica* Michaelsen, 1892 (Oligochaeta, Moniligastridae) is considered an epigeic species because its preferred habitat is mostly humid litter layers or topsoil ground in particular areas like forests, drainage ditches and ponds or reservoirs. Nevertheless, Gates (1972) thought that this species came originally from the Indian Himalayas and questioned the identification of some earlier records from outside Japan or Korea. In India, 89% of the fauna are native and the rest exotic (Julka & Paliwal 2005; Verma et al. 2010).

Kumaun Himalaya, a west-central section of the Himalaya in northern India, ranges from 28° 44' & 31° 28' N and 77° 35' & 81° 01' East. Information on the earthworm community of the Kumaun region is minimal. Earthworms are required to survive a good supply of food, plenty of moisture, enough dissolved oxygen, shelter from sunlight, a balanced pH level, an environment free from toxic substances, and a suitable temperature (Reynolds et al. 2021). The present study is based on the diversity of earthworms located at different altitudes of the Kumaun Himalaya (1,409–2,224 m). The study reported one lumbricid species, *Drawida japonica* Michaelsen 1892 for the first time from Kumaun Himalaya (Image 1).

MATERIALS & METHODS

Earthworms were collected from Dhari tehsil (29.3397^{0}N, 79.5877^{0}E), Nainital District of Kumaun Himalaya region, by the hand sorting method from two cultivated land and orchards with two soil depths of 0–10 and 10–20 cm. The earthworms were sampled from twelve different sites for two years (April 2019–April 2021), covering the major monsoon period in India. The sampled worms were washed, anesthetized in 70% ethanol, preserved in 10% formalin and brought to the laboratory for further investigations.

RESULTS

The collected earthworms were identified to species level by the Zoological Survey of India (ZSI), Kolkata and a total of 14 earthworm species belonging to four different families: Megascolecidae, Lumbricidae, Moniligastridae, and Octochaetidae were recorded, with a new record of *Drawida japonica* from the cultivated land and orchards

Image 1. *Drawida Japonica* collected from Tehsil Dhari, Kumaun division Uttarakhand. © Shikha Bora.

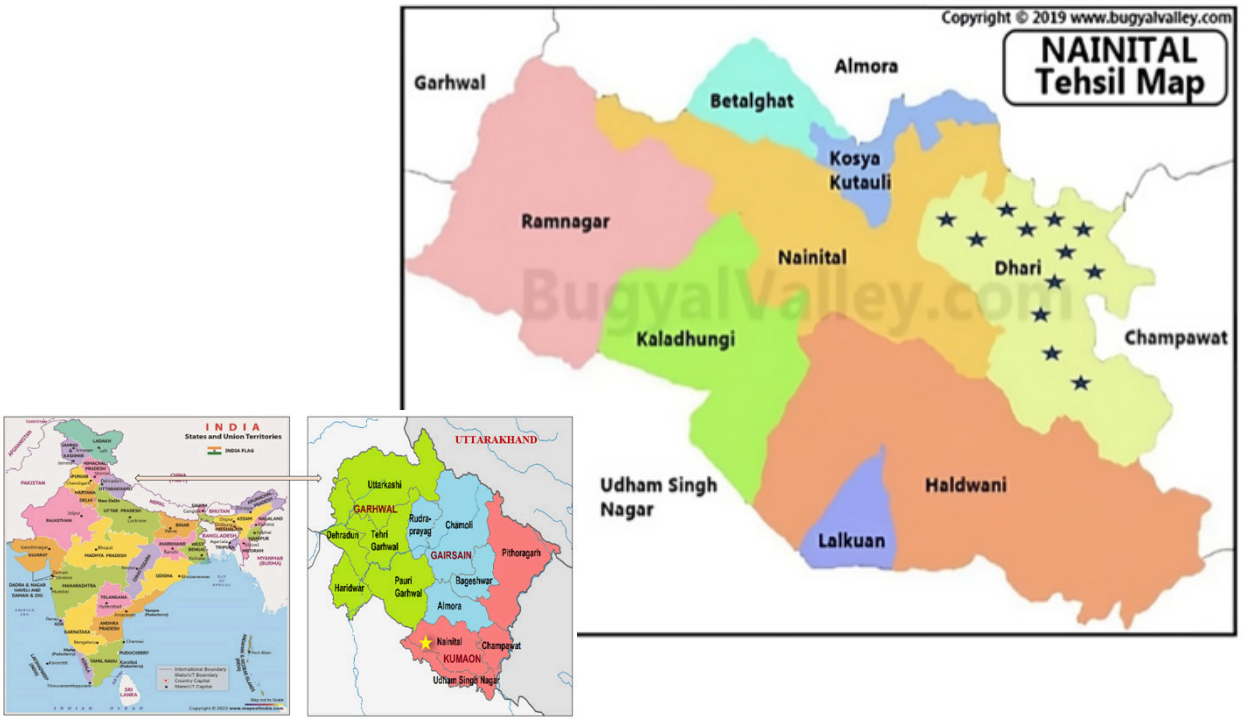

Figure 1. Study sites (⚜), District Nainital, Uttarakhand (⚜) Dhanachuli, Sasbani, Managair, Padampuri, Okhalkanda, Nadgal, Pahadpani, Sarnaa, Matiyal, Churigarh, Chaukhuta, Babiyar.

of Kumaun Himalayas. All the earthworm species have been deposited to ZSI Kolkata and provided with National Zoological Collection number.

Megascolecidae

***Amynthas corticis* (Kinberg, 1867) [syn. *Amynthas diffringens* (Baird, 1969)]**

Origin: Endemic.

Collection no.(s): M4, P1, P4, P6, P7, N1, N5, N7, N8 PP1, PP3, PP7, SN2, MT3, MT4, C1

Date(s) of collection: 24.vi.2020, 12.vii.2019,31. vii.2020, 09.ix.2019, 30.ix.2020, 15.x.2019, 29.x.2020, 27.xi.2019, 30.xii.2020, 31.i.2020

Collection site: Cultivated land, orchards

Garhwal: Chamoli District – Bhimtoli, Joshimath, Mandal, Pandukeshwar, Mana, Govindghat; Pauri District – Lansdowne, Kanda, Pauri, Malan Sanctuary, Chamdhar, Gumkhal; Rudra Prayag District – Phata, Augastmani, Narainkoti, Trijuginarain; Tehri District – Kirtinagar, Kaddukhal, Pokhal; Uttarkashi District – Uttarkaskhi, Maneri, Rautri Sera, Jashyra, Badyar Gad, Mori Dunda.

Kumaun: Almora District – Kausani, Chaukni, Sheraghat, Lakhidiyar, Soni; Bageshwar District – Begeshwar, Garur, Jogeshwar, Baijnath; Champawat District – Lohaghat, Bed Bagad; Dehra Dun District – Amlawa river bed, Kalsi, Rajpur, Ramgash; Nainital District – Bhimtal, Nainital, Sattal, Ramgarh, Mohan, Malani; Pithoragarh District – Didihat, Thal, Jharia Gad,Pithorgarh,Berinag, Dhamrikhet, Arca.

***Amynthas morrisi* (Beddard, 1892)**

Origin: Endemic.

Collection no.(s): O1,O2, O3, O8, O11

Date(s) of collection: 27.viii.2019, 31.viii.2020

Collection site: Cultivated land, orchards

Garhwal: Dehradun District – Raipur, Dehradun.

Kumaun: Nainital District – Kungaon, Bhowali, Patwadangar, Shantipuri.

***Amynthas alexandri* (Beddard, 1900)**

Origin: Endemic.

Collection no.(s): O6, O7, O11, O12,

Date(s) of collection: 27.viii.2019, 31.viii.2020

Collection site: Cultivated land, orchards

Garhwal: Dehradun District – Gujrara, Sahastradhara, Nehrugram; Pauri District – Khankra.

Kumaun: Nainital District – Ranibagh.

***Metaphire anomala* (Michaelsen, 1907)**

Origin: Endemic.

Collection no.(s): O2, O4, O5, O6, O9, O10, N4

Date(s) of collection: 27.viii.2019, 31.viii.2020, 30.ix.2020

Collection site: Cultivated land, orchards

Garhwal: Chamoli District – Nandprayag, Thirpali; Dehardun District – Sahastradhara, Dehradun, Lachhiwala, Ghattikhola, Gujrara, Mussoorie Forest range; Pauri District – Dhikala-Kanda Road; Tehri District – Deoprayag.

Kumaun: Nainital District – Naukuchia Tal.

***Metaphire houlleti* (Perrier, 1872)**

Origin: Endemic.

Collection no.(s): O1, O4, O7, O11

Date(s) of collection: 27.vii.2019, 31.viii.2020, 30.ix.2020

Collection site: Cultivated land, orchards

Garhwal: Chamoli District – Thirpali; Dehradun District – Dehradun; Dehradun, Sahiya, Nehrugram, Ghattikhola, Lalpul, Timli Forest, Shastradhara, Rishikesh, Phanduwala, Gujrara; Rudraprayag District – Rudraprayag; Tehri District – Kirtinagar, Aglar River, Gulabrai, Chamba.

Kumaun: Almora District – Soni, Chitai; Champawat District – Champawat; Nainital District – Gagasat Sultan, Ranibagh, Bhowali, Dhangarhi, Naukuchia Tal, Sat Tal, Kaladhungi, Bhim Tal; Pithoragarh District – Thal, Jharia Gad, Oriti, Ravti Nalla, Kolika.

***Metaphire birmanica* (Rosa, 1888)**

Origin: Endemic.

Collection no.(s): O1

Date(s) of collection: 27.viii.2019

Collection site: Cultivated land, orchards

Garhwal: Chamoli District – Pipalkoti, Kuher, Nandprayag; Dehradun District – Mussoorie, Nehrugram, Ghattikhola, Kandholi Forest; Pauri District – Dhikala-Kanda Road, Dhikala Sarapduli Road; Rudraprayag District– Rudraprayag.

Kumaun: Bageshwar District – Garur, Kapkote; Nainital District – Nainital, Deochauri, Naukuchia Tal.

***Perionyx excavates* (Perrier, 1872)**

Origin: Exotic.

Collection no.(s): B1

Date(s) of collection: 03.iii.2020

Collection site: Cultivated land, orchards

Garhwal: Dehra Dun district – Phanduwala, Dehra Dun, Satyanarain, Kansro Forest, Motichur Rao; Chamoli District – Joshimath; Pauri dist.- Khankara, Chamdhar, Kanda Nala; Uttarkashi dist.- Barnigad Kuwa.

Kumaun: Uttaranchal: Almora, Sheraghat; Phorti, Sandev; Naini Tal District - Bhowali, Naini Tal, Mohan.

Lumbricidae

***Aporrectodea trapezoids* (Dugès, 1828)**

Origin: Exotic.

Collection no.(s): M4, C2, C3

Date(s) of collection: 24.vi.2020,19.i.2021

Collection site: Cultivated land, orchards

Garhwal: Chamoli District – Joshimath, Mana, Joshimath-TapovanRoad, GarurGanga, Helong; Dehradun District –Chakarata, Mussoorie, Sahiya; Tehri District – Patli Devika; Uttarkashi District – Bhairo, Ghati, Lanka.

Kumaun: Almora District – Ranikhet, Soni, Punwa Nalla; Champawat District – Champawat; Nainital District – Nainital, Ramgarh; Pithoragarh District – Deval Thal.

***Aporrectodea rosea rosea* (Savigny, 1826)**

Origin: Exotic.

Collection no.(s): M4, C2, C3

Date(s) of collection: 24.vi.2020, 19.i.2021

Collection site: Cultivated land, orchards

Garhwal: Uttaranchal: Chamoli District – Valley of Flowers, Joshimath; Dehra Dun District - Mussoorie; Pauri District - Lansdowne; Tehri District – Kaddukhal.

Kumaun: Nainital District – Nainital, Ramgarh.

Eisenia fetida

Origin: Exotic.

Collection no.(s): D3, D5, P5, PP4, SN4, SN5, MT2, C2, CT1

Date(s) of collection: 11.iv.2020, 12.vii.2019, 15.x.2019, 30.xi.2020, 30.xii.2019, 19.i.2021, 20.ii.2020

Collection site: Cultivated land, orchards

Garhwal: Chamoli District – Govindghat, Joshimath, Padukeshwar; Dehradun District – Mussoorie; Tehri District – Kaddukhal.

Kumaun: Nainital District – Ghorakhal, Kathgodam, Khurpata.

***Octolasion tyrtaeum* (Savigny, 1826)**

Origin: Exotic.

Collection no.(s): D2, D3, D4, S1, S2, M1, M2, M3, N2, N4, N6, N7, PP2, PP5, PP6, SN1, SN4, SN6, MT1, MT4, CT2, CT4,

Date(s) of collection: 09.iv.2019, 11.iv.2020, 25.v.2020, 18.vi.2019, 24.vi.2020, 09.ix.2019, 30.ix.2020, 15.x.2019, 29.x.2020,27.xi.2019, 30.xi.2020, 30.xii.2019, 30.xii.2020, 20.ii.2020, 28.ii.2021

Collection site: Cultivated land, orchards

Table 1. The detailed distribution of the habitats and the collection information of collected earthworms are given below.

Family	Species	Ecological/ Feeding Category	Ecotype of study sites											
			D	S	M	P	O	N	PP	SN	MT	C	CT	B
Lumbricidae	*Aporrectodea caliginosa trapezoids* (Dugés, 1828)	Endogeic	-	-	+	-	-	-	-	-	-	+	-	-
	Aporrectodea rosea rosea (Savigny, 1826)	Endogeic	-	-	-	-	-	-	-	-	+	-	-	-
	Eisenia fetida (Savigny, 1826)	Epigeic	+	-	+	-	-	-	+	+	+	+	+	-
	Octolasion tyrtaeum (Savigny, 1826)	Endogeic	+	+	+	-	-	+	+	+	+	-	+	-
	Dendrodrilus rubidus (Savigny, 1826)	Epigeic	-	-	-	-	-	+	-	-	-	-	-	-
Megascolecidae	*Amynthas alexandri* Beddard, 1900	Endogeic	-	-	-	-	+	-	-	-	-	-	-	-
	Amynthas corticis (Kinberg,1867)	Epi-endogeic	-	-	+	+	-	+	+	+	+	+	-	-
	Amynthas morrisi (Beddard, 1892)	Epi-endogeic	-	-	-	-	+	-	-	-	-	-	-	-
	Metaphire anomala (Michaelsen, 1907)	Anecic	-	-	-	-	+	+	-	-	-	-	-	-
	Metaphire birmanica (Rosa, 1888)	Endogeic	-	-	-	-	+	-	-	-	-	-	-	-
	Metaphire houlleti (Perrier, 1872)	Epi-endogeic	-	-	-	-	+	-	-	-	-	-	-	-
	Perionyx excavates Perrier, 1872	Epigeic	-	-	+	-	+	-	-	-	-	-	-	+
Mongiligastridae	*Drawida japonica* Michaelsen, 1892	Endogeic	-	-	-	+	-	-	-	+	-	-	+	-
Octochaetidae	*Eutyphoeus nainianus* (Michaelsen, 1907)	Epigeic	+	-	-	-	-	-	-	-	-	-	-	-

D—Dhanachuli | S—Sasbani | M—Managair | P—Padampuri | O—Okhalkanda | N—Nadgal | PP—Pahadpani | SN—Sarnaa | MT—Matiyal | C—Churigarh | CT—Chaukhuta | B—Babiyar.

Garhwal: Chamoli District – Joshimath, Padukeshwar; Dehradun District – Mussoorie, Bahmanpur, Shahastrdhara, Chakrata; Tehri District – Dhanaulti, Kaddukhal, Patli, Devika.

Kumaun: Almora District – Jhoola Devi; Nainital District – Bhim Tal, Ramgarh, Nainital.

***Dendrodrilus rubidus* (Savigny, 1826)**

Origin: Exotic.

Collection no.(s): N3

Date(s) of collection: 09.ix.2019

Collection site: Cultivated land, orchards

Garhwal: Dehra Dun District – Chakrata, Musoorie; Rudraprayag District - Phata, Trijuginaraian; Tehri District - Dhanaulti; Uttarkashi District – Harsil, Bhairon Ghati Lanka, Uttarkashi

Kumaun: Almora District – Almora, Khati; Chamoli District – Kedarnath, Tungnath, Vasu Dhara, Chopta, Hemkund, Valley of Flowers, Mana, Joshimath, Bedni; Naini Tal District – Gairal, Ramgarh, Nainital.

Moniligastridae

***Drawida japonica* (Michaelsen, 1892)**

Origin: Exotic.

Collection no.(s): P2, P3, P6, P7, SN5, CT3, CT5

Date(s) of collection: 12.vii.2019, 31.vii.2020, 30.xi.21, 20.ii.20, 28.ii.21

Collection site: Cultivated land, orchards

Garhwal: Uttaranchal: Dehra Dun District – Chakrata, Mussoorie.

Kumaun: First record from Dhari, Nainital.

Octochaetidae

***Eutyphoeus nainianus* (Michaelsen, 1907)**

Origin: Endemic

Collection no.(s): D1, D4

Table. 2. Earthworm diversity along the altitudes of Kumaun Himalaya.

Date of collection	Location	Altitude (m)	Latitude	Longitude	Collection Number	Registration Number
09.iv.2019	Dhanachuli	2126	29. 23747	79.39480	D1, D2	ZSIHQ-AN6533/1
25.v.2019	Sasbani	1936	29.2556	79.4006	-	
18.vi.2019	Managhair	2224	29.23797	79.46836	M1	ZSIHQ-AN6532/1
12.vii.2019	Padampuri	1599	29.23415	79.37029	P1–P5	ZSIHQ-AN6501/1, ZSIHQ-AN6505/1, ZSIHQ-AN6527/1, ZSIHQ-AN6565/1, ZSIHQ-AN6566/1, ZSIHQ-AN6579/1,
27.viii.2019	Okalkanda	1663	29.19428	79.44009	O1–O8	ZSIHQ-AN6583/1, ZSIHQ-AN6584/1, ZSIHQ-AN6585/1, ZSIHQ-AN6588/1, ZSIHQ-AN6589/1, ZSIHQ-AN6580/1, ZSIHQ-AN6569/1, ZSIHQ-AN6570/1, ZSIHQ-AN6556/1, ZSIHQ-AN6557/1, ZSIHQ-AN6514/1, ZSIHQ-AN6572/1, ZSIHQ-AN6573/1
09.ix.2019	Nadgal	1673	29.24741	79.43276	N1–N3	ZSIHQ-AN6528/1, ZSIHQ-AN6509/1, ZSIHQ-AN6520/1
15.x.2019	Pahadpani	2106	29.25656	79.42622	PP1–PP4	ZSIHQ-AN6508/1, ZSIHQ-AN6510/1, ZSIHQ-AN6524/1, ZSIHQ-AN6531/1
27.xi.2019	Sarna	1675	29.22930	79.37907	SN1–SN3	ZSIHQ-AN6542/1, ZSIHQ-AN6530/1, ZSIHQ-AN6536/1,
30.xii.2019	Matiyal	1649	29.22706	79.36772	MT1, MT2	ZSIHQ-AN6504/1, ZSIHQ-AN6534/1
31.i.2020	Churigarh	1545	29.20663	79.39921	-	
20.ii.2020	Chaukhuta	1737	29.24628	79.38005	CT1–CT3	ZSIHQ-AN6503/1, ZSIHQ-AN6525/1, ZSIHQ-AN6517/1
03.iii.2020	Babiyar	1499	29.17613	79.41457	B1	ZSIHQ-AN6516/1
11.iv.2020	Dhanachuli	2126	29.23747	79.39480	D3–D5	ZSIHQ-AN6571/1, ZSIHQ-AN6507/1, ZSIHQ-AN6587/1, ZSIHQ-AN6586/1
25.v.2020	Sasbani	1936	29.2556	79.4006	S1, S2	ZSIHQ-AN6560/1, ZSIHQ-AN6529/1
24.vi.2020	Managhair	2224	29.23797	79.46836	M2, M3, M4	ZSIHQ-AN6502/1, ZSIHQ-AN6561/1, ZSIHQ-AN6562/1, ZSIHQ-AN6515/1
31.vii.2020	Padampuri	1599	29.23415	79.37029	P6, P7	ZSIHQ-AN6558/1, ZSIHQ-AN6559/1, ZSIHQ-AN6581/1, ZSIHQ-AN6582/1
31.viii.2020	Okhalkanda	1663	29.19428	79.44009	O9–O12	ZSIHQ-AN6538/1, ZSIHQ-AN6526/1, ZSIHQ-AN6522/1, ZSIHQ-AN6539/1, ZSIHQ-AN6540/1, ZSIHQ-AN6541/1, ZSIHQ-AN6572/1, ZSIHQ-AN6573/1
30.ix.2020	Nadgal	1673	29.24741	79.13276	N4–N8	ZSIHQ-AN6567/1, ZSIHQ-AN6568/1, ZSIHQ-AN6548/1, ZSIHQ-AN6549/1, ZSIHQ-AN6550/1, ZSIHQ-AN6523/1, ZSIHQ-AN6535/1, ZSIHQ-AN6518/1,
29.x.2020	Pahadpani	2106	29.25656	79.42622	PP5–PP8	ZSIHQ-AN6546/1, ZSIHQ-AN6547/1, ZSIHQ-AN6553/1, ZSIHQ-AN6554/1, ZSIHQ-AN6519/1, ZSIHQ-AN6512/1
30.xi.2020	Sarna	1675	29.22930	79.37907	SN4–SN6	ZSIHQ-AN6506/1, ZSIHQ-AN6552/1, ZSIHQ-AN6551/1, ZSIHQ-AN6563/1, ZSIHQ-AN6564/1
30.xii.2020	Matiyal	1649	29.22706	79.36772	MT3, MT4	ZSIHQ-AN6576/1, ZSIHQ-AN6577/1, ZSIHQ-AN6578/1, ZSIHQ-AN6574/1, ZSIHQ-AN6575/1
19.i.2021	Churigarh	1545	29.20663	79.39921	C1–C3	ZSIHQ-AN6544/1, ZSIHQ-AN6545/1, ZSIHQ-AN6537/1, ZSIHQ-AN6521/1,
28.ii.2021	Chaukhuta	1737	29.24628	79.38005	CT4, CT5	ZSIHQ-AN6545/1, ZSIHQ-AN6513/1,
11.iii.2021	Babiyar	1499	29.17613	79.41457	-	

Date(s) of collection: 09.iv.2019
Collection site: Cultivated land, orchards
Garhwal: Chamoli District – Talwari.
Kumaun: Naini Tal District – Naini Tal; Pithoragarh District – Pabta.

DISCUSSION

Fourteen species recorded from the study area, seven were identified belonging to the family Megascolecidae, five from Lumbricidae, one from Moniligastridae, and one from Octochaetidae, respectively. Megascolecidae was dominant in all habitats of the Kumaun Himalaya, and the most widely distributed species was *Octolasion tyrtaeum* and *Eisenia fetida*. *Drawida japonica* belongs to family Moniligastridae has been reported for the first time from the Kumaun region, and for a second time from Uttarakhand. All the other species were reported previously by various authors including: Mubeen & Hatti (2018); Rajwar et al. (Rajwar et al. 2018, 2022); Bora et al. (2021a,b); Saikia et al. (2021); Ahmad et al. (2022); Khan (2022). *Drawida japonica* was reported from high-altitude cultivated land and orchards, i.e., 1400 m; therefore, it is assumed that it could be present in other parts of the Himalayan mountains with similar geo-climatic conditions and it is possible that this species might also be available in other parts of the Himalaya besides the studied region due to similarity in biomes.

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