

(An Autonomous Institution of Ministry of Environment, Forest and Climate Change,
Government of India)
Chandrabani, Dehra Dun - 248 001, India
EPBAX: 0135 2640114 and 2640115, FAX: 2640117

### Advt. No. YVJ/WII/T. CELL/APNT/2016/196

# Contractual Recruitment of 59 Project Personnel at the Wildlife Institute of India (WII), Dehradun

The Wildlife Institute of India (WII), Dehradun is a premier national autonomous Institute of the Ministry of Environment, Forests and Climate Change (MoEFCC), Government of India in the field of teaching, training and research in the area of wildlife conservation and Protected Area management. The Institute wishes to engage 59 research personnel for various positions on contractual basis for the following two projects and Tiger Cell:

- 1) Country Level Assessment of Status of Tigers, Co-predators and Prey and their Habitats in India: Since 2006, the National Tiger Conservation Authority (NTCA) in collaboration with the Wildlife Institute of India (WII) has been conducting a National level assessment for the "Status of Tigers, Co-predators, Prey and their Habitat" every four years based on a scientific methodology approved by the Tiger Task Force 2005. The project aims at assessment of tigers, other predators, major prey species, habitat qualities and human disturbance parameters in all potential tiger occupied landscapes spread over 18 States in the country.
- 2) Ecological Assessment of Palamau Tiger Reserve for evaluating feasibility of supplementing tiger and prey: WII has been entrusted upon by Jharkhand Forest Department to evaluate Palamau Tiger Reserve for understanding its ecological potential for augmentation of tiger and major prey. The project aims at evaluation of the current carnivore and prey abundance in Palamau Tiger Reserve and assessment of habitat characteristics and anthropogenic disturbances therein.
- 3) Tiger Cell: In order to achieve the goal of tiger conservation through a holistic approach based on science, the Tiger Cell (in collaboration with the National Tiger Conservation Authority–NTCA) was established at WII in April, 2016. The main mandates of the Cell includes: i) periodic, country-wide assessment of tigers, co-predators, prey and their habitat; ii) ecological monitoring of the Tiger Reserves; iii) implementation of M-STrIPES in Tiger Reserves; iv) site appraisals and evaluation of development projects vis-à-vis tiger distribution, dispersal and corridor network; v) maintain National Tiger Photo Data base for controlling illegal wildlife trade related to tigers and vi) provide training as and when required for ecological monitoring, research and management.

Details of the positions along with essential and desirable qualifications, terms and conditions and how to apply are given below:

## Details of the advertised positions

SL No	Position	Number of Positions	Essential Qualification	Desirable Qualification	Age Limit (yrs.) as on last date of submission of online application	Consolidated emoluments /month (Rs.)	Recruitment Tenure with Assessment Period	Job description		
Project Title: Country Level Assessment of Status of Tigers, Co-predators and Prey and their Habitats in India										
1	Project Associate	2 (Two)	Doctorate degree in Biological Sciences or M.Sc. in Wildlife Sciences/Zoology/Botany /Life Sciences/Forestry/ Environmental Science with a minimum of 55% aggregate marks in M.Sc. from a recognized University with at least 2 years of research experience.	Publications in the relevant field with experience in animal abundance estimation, analytical skills.	UR: not exceeding 40 years. SC/ST/Women: not exceeding 45 years. OBC: not exceeding 43 years.	40,000/-	One year (Candidate shall be assessed during the initial 3 months. Grant of further extension shall be subjected to the satisfactory performance and at the sole discretion of the Institute)	Analysis of large scale data on animal abundance and indices, field supervision and training, report writing. Work will be both at HQ in Dehradun with several field visits. The job requires extensive traveling to forest interiors, wildlife areas and arduous terrains across India for longer durations.		
2	Senior Biologist	4 (Four)	M.Sc. in Wildlife Science/Botany/Zoology /Forestry/Life Sciences/ Environmental Sciences/ Biotechnology/ Genetics with a minimum of 55% aggregate marks from a recognized University with at least one year's experience.	Candidates with prior experience in animal abundance estimation techniques shall be given preference.	UR: not exceeding 35 years. SC/ST/Women: not exceeding 40 years. OBC: not exceeding 38 years	28,000/-	One year (Candidate shall be assessed during the initial 3 months. Grant of further extension shall be subjected to the satisfactory performance and at the sole discretion of the Institute)	Field work and analysis of data on animal abundance, occupancy and habitat parameters. Work will be both at HQ in Dehradun with several field visits to forest interiors, wildlife areas and arduous terrains across India for longer durations.		

SL No	Position	Number of Positions	Essential Qualification	Desirable Qualification	Age Limit (yrs.) as on last date of submission of online application	Consolidated emoluments /month (Rs.)	Recruitment Tenure with Assessment Period	Job description
3	Research Biologist (Field compone nt)	45 (Forty Five)	B.E./B.Tech./B.Sc. or M.Sc. in Wildlife Science/Botany/Zoology /Forestry/ Life Sciences/Environmental Sciences/Environmental Management/ Agricultural Sciences/Veterinary Sciences/Biotechnology/ Genetics with a minimum of 50% aggregate marks from a recognized University.	Candidate(s) with prior experience in sampling design and animal abundance estimation will be preferred. Able to do field work in harsh condition.	UR: not exceeding 35 years for B.E./B.Tech./M.Sc. and 28 years for B.Sc. SC/ST/Women: not exceeding 40 years for M.Sc. and 33 years for B.Sc. OBC: not exceeding 38 years for M.Sc. and 31 years for B.Sc.	25,000/- (B.E./B.Tech./ M.Sc. candidates)  20,000/- (B.Sc. candidates)	One year (Candidate shall be assessed during the initial 3 months. Grant of further extension shall be subjected to the satisfactory performance and at the sole discretion of the Institute)	Population estimation using camera traps, mark recapture, distance sampling and occupancy analysis. Habitat evaluation and human disturbance assessment. The research work will be carried out in different parts of India. Work will be primarily at field sites with occasional visits to the HQ at Dehradun.
4	Research Biologist (GIS compone nt)	2 (Two)	M.Sc./M.Tech in Wildlife Science/Life Sciences/Forestry/Environmental Science/Applied Science/Remote Sensing and GIS with a minimum of 50% aggregate marks from a recognized university.  OR  Post Graduate/Diploma in Remote Sensing and GIS with a minimum of 50% aggregate marks from a recognized university.	Experience in Remote Sensing and GIS, competency in Arc GIS, ERDAS IMAGINE and other Open Source Software (Q GIS etc.) shall be given preference.	UR: not exceeding 35 years SC/ST/Women: not exceeding 40 years OBC: not exceeding 38 years	25,000/-	One year (Candidate shall be assessed during the initial 3 months. Grant of further extension shall be subjected to the satisfactory performance and at the sole discretion of the Institute)	The job primarily involves handling, processing and analyses of large scale spatial data with data processing, digitization, feature extraction, and analysis within GIS platform. Maintenance of spatial data, end user support. Generation of maps and providing other GIS reports and information. Work will be primarily at WII with some field visits for ground validations (if required).

Position	Number	Essential	Desirable	Age Limit	Consolidated	Recruitment	Job description
		Qualification	Qualification			Tenure with	
	Positions				/month (Rs.)		
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Research Biologist (Genetics compone nt)	3 (Three)	M.Sc./M. Tech in Wildlife Science/Genetics/Biotech nology/Biosciences/Bota ny/Zoology/Life Sciences with a minimum of 55% aggregate marks from a recognized University.	Candidate(s) with prior experience in DNA extraction, PCR, Analysis of genetic data especially sequence and microsatellite will be given preference.	UR: not exceeding 35 years SC/ST/Women: not exceeding 40 years OBC: not exceeding 38 years	25,000/-	One year (Candidate shall be assessed during the initial 3 months. Grant of further extension shall be subjected to the satisfactory performance and at the sole discretion of the Institute)	Developing a genetic database of large carnivores to understand population structure and gene flow. Work will be primarily at Dehradun lab based with some field visits for sample collections.
ect Title: E	cological A	Assessment of Palama	u Tiger Reserve f	for evaluating feas	ibility of supp	lementing tige	and prey
Project Biologist	2 (Two)	M.Sc. in Wildlife Science/Botany/Zoology /Forestry/Life Science/Environmental Sciences /GIS with a minimum of 55% aggregate marks from a recognized University aggregate marks from a recognized University with at least one year's experience	Candidates with prior experience in sampling design, animal abundance estimation will be preferred.	UR: not exceeding 35 years. SC/ST/Women: not exceeding 40 years. OBC: not exceeding 38 years	28,000/-	One year (Candidate shall be assessed during the initial 3 months. Grant of further extension shall be subjected to the satisfactory performance and at the sole discretion of the Institute)	Population estimation using camera traps, mark recapture, distance sampling and occupancy analysis. Habitat evaluation and human disturbance assessment. Work will be primarily at Palamau Tiger Reserve, Jharkhand with occasional visits to the HQ at Dehradun.
	Research Biologist (Genetics compone nt)	Research Biologist (Genetics compone nt)  Pect Title: Ecological Project 2	Research Biologist (Genetics compone nt)  Project Biologist (Two)  Research Science/Genetics/Biotech nology/Biosciences/Bota ny/Zoology/Life Sciences with a minimum of 55% aggregate marks from a recognized University.  M.Sc./M. Tech in Wildlife Science/Genetics/Biotech nology/Biosciences/Bota ny/Zoology/Life Sciences with a minimum of 55% aggregate marks from a recognized University.	Research Biologist (Genetics compone nt)  Project Biologist (Two)  Project Biologist  (Two)  Project Biologist  Biologist  Project Biologist  Project Biologist  Project Biologist  Project Biologist  Project Biologist  Project Biologist Biolo	Research Biologist (Three) Science/Genetics/Biotech nology/Biosciences/Botanny/Zoology/Life Sciences with a minimum of 55% aggregate marks from a recognized University.  Project 2 M.Sc. in Wildlife Science Biologist (Two)  Project 2 M.Sc. in Wildlife Science/Botanny/Zoology/Life Science/Botany/Zoology/Life Science and microsatellite will be given preference.  Project 2 M.Sc. in Wildlife Science/Botany/Zoology/Forestry/Life Science/Botany/Zoology/Forestry/Life Science/Environmental Sciences/GIS with a minimum of 55% aggregate marks from a recognized University aggregate marks from a recognized University aggregate marks from a recognized University with at least  Project 2 M.Sc. in Wildlife Science/Botany/Zoology/Forestry/Life Science/Environmental Sciences/GIS with a minimum of 55% aggregate marks from a recognized University aggregate marks from a recognized University with at least  Project Science/Environgental abundance estimation will be preferred.  Project Science/Environgental abundance estimation will be preferred.	Research Biologist (Three) Science/Genetics/Biotech nology/Biosciences/Botan ny/Zoology/Life Sciences with a minimum of 55% aggregate marks from a recognized University.  M.Sc. in Wildlife Science/Biotech prior experience in DNA extraction, PCR, Analysis of genetic data especially sequence and microsatellite will be given proference.  M.Sc. in Wildlife Science/Botany/Zoology / Forestry/Life Science/Environmental Sciences/GIS with a minimum of 55% aggregate marks from a recognized University aggregate marks from a recognized University aggregate marks from a recognized University with at least with a minimum of 55% aggregate marks from a recognized University with at least with a marks from a recognized University with at least with a least with a date of submission of online application will be given to RCandidate(s) with prior experience in DNA extraction, PCR, Analysis of genetic data especially sequence and microsatellite will be given prior experience in sampling design, animal abundance estimation will be prior experience in sampling design, animal abundance estimation will be prior experience in sampling design, animal abundance estimation will be prior experience in DNA extraction, PCR, Analysis of genetic data especially sequence and microsatellite will be given prior experience in sampling design, animal abundance estimation will be prior experience in sampling design, animal abundance estimation will be prior experience in DNA extraction, PCR, Analysis of genetic data especially sequence and microsatellite will be given prior experience in DNA extraction, PCR, Analysis of genetic data especially sequence and microsatellite will be given prior experience in SC/ST/Women: not exceeding 38 years  SC/ST/Women: not exceeding 35 years.  SC/ST/Women: not exceeding 35 years.  SC/ST/Women: not exceeding 35 years.  SC/ST/Women: not exceeding 36 years.  SC/ST/Women: not exceeding 37 years.  SC/ST/Women: not exceeding 37 years.  SC/ST/Women: not exceeding 38 years.  SC/ST/Women: not exceeding 38 years.	Research Biologist (Genetics compone nt)  No specific Title: Ecological Assessment of Palamau Tiger Reserve for evaluating feasibility of supplementing tiger proformance and at the sole discretion of further extension shall be assessed University with a minimum of 55% aggregate marks from a recognized University with a minimum of 55% aggregate marks from a recognized University.  Note Title: Ecological Assessment of Palamau Tiger Reserve for evaluating feasibility of supplementing tiger in sampling during the initial abundance estimation will be preferred.  Project Biologist from a recognized University with a minimum of 55% aggregate marks from a recognized University with a least one year's experience on eyear's experience of the satisfactory performance and at the sole discretion of the satisfactory performance and a the sole discretion of the satisfactory performance and at the sole discretion of the satisfa

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Tige	r Cell							
7	Senior Biologist	1 (One)	M.Sc. in Wildlife Sciences/Zoology/Botany /Life Sciences/Forestry/ Environmental Science/ Veterinary Science with a minimum of 55% aggregate marks in M.Sc. from a recognized University with at least 2 years of research experience	Candidates with prior experience in animal abundance estimation techniques. Proficiency in using computers and good writing skill in English language. Publication record desirable.	UR: not exceeding 35 years. SC/ST/Women: not exceeding 40 years. OBC: not exceeding 38 years	40,000/-	One year (Candidate shall be assessed during the initial 3 months. Grant of further extension shall be subjected to the satisfactory performance and at the sole discretion of the Institute)	Field work and analysis of data on animal abundance, occupancy and habitat parameters. Work will be both at HQ in Dehradun, with several field visits to forest interiors, wildlife areas and arduous terrains across India for longer durations.

#### **Recruitment Process**

Project Associate, Senior Biologist, Research Biologist (all components) and Project Biologist - The Project Personnel (Indian Nationals) for these positions shall be recruited through an Online Qualifying Test followed by a Personal Interview.

The Online Qualifying Test for these positions will be conducted at 17 Centres namely (i) Dehradun (ii) Jaipur, (iii) Mumbai, (iv) Bengaluru, (v) Chennai, (vi) Kolkata, (vii) Guwahati, (viii) Lucknow, (ix) Bhopal, (x) Delhi/NCR, (xi) Hyderabad, (xii) Ahmedabad, (xiii) Nagpur, (xiv) Chandigarh, (xv) Coimbatore (xvi) Thiruvananthapuram and (xvii) Ranchi. The address of the centre(s) will be communicated to candidates in their Admit Cards.

Interested candidates meeting the eligibility criteria as mentioned above against each advertised positions may apply for Online Qualifying Test through http://services2.exon.in/wiircnctest/reg/

The decision of the Institute Screening Committee in all matters relating to eligibility, work experience, acceptance or rejection of application, mode of selection will be final and binding on the candidates and no enquiry of correspondence will be entertained from any individual or his/her agency. At the time of the verification of original documents, if it is found that an attempt has been made by the applicant to willfully conceal, misrepresent or canvass the facts, his/her candidature will not be considered. A separate declaration form will have to be submitted through online application system.

#### Online Qualifying Test and Interview:

- a. The entrusted online agency will issue "Admit Card" to eligible candidates which can be downloaded from the weblink provided. The admit card will have details of Examination Centre, Date and Time, wherein the applicants shall appear at their own cost. Applicants will make their own arrangement for travel and accommodation for appearing in the said Online Qualifying Test.
- b. For positions Project Associate, Senior Biologist, Research Biologist (all components) and Project Biologist: The Online Qualifying Test (50 marks) will be of one-hour duration comprising of:
  - i) 25 multiple choice questions from General Ecology and Conservation Biology (25 Marks) [for position serial numbers 1,2,3,6 and 7]
  - ii) 25 multiple choice questions from GIS and Remote Sensing (25 Marks) [for position serial number 4]
  - iii) 25 multiple choice questions from Conservation Genetics (25 Marks) [for position serial number 5]
  - iv) An essay of maximum 500 words on the given topic related to Wildlife Conservation and Ecology (25 Marks) for all positions
- c. Candidates appearing for 2 positions in between serial numbers 1,2,3,6,7 and 4 or 5 will take two common multiple choice papers as described in section b (i iii) [25 marks each] followed by the essay. The total time given to these candidates will be 1 hour 30 minutes.

- d. Candidates appearing for 2 positions in between serial numbers 1,2,3,6,7 will take one common multiple choice paper as described in section b (i) [25 marks] followed by the essay. The total time given to these candidates will be 1 hour.
- e. Online Qualifying Test will be conducted at respective centers on Saturday, 23<sup>rd</sup> December 2017 from 11 AM onwards. The location of the centers will be communicated to the candidates by email and admit card.
- f. The online test is of a qualifying nature; only short-listed candidates will be called for the interview. The final selection of the candidate will be in accordance with the performance in the interview and in order of merit as decided by the Interview Committee.
- g. The result of the Qualifying Test for Project Associate, Senior Biologist, Research Biologist (all components) and Project Biologist shall be declared and hosted on the Institute's website <a href="https://www.wii.gov.in">www.wii.gov.in</a> by the end of December, 2017.
- h. The shortlisted candidates for positions at serial numbers 1 to 5 shall appear for a personal interview at the Wildlife Institute of India, Dehradun from 15<sup>th</sup> to 18<sup>th</sup> January 2018 at 9 AM onwards, each day. Shortlisted candidates should come prepared for staying at least two days in Dehradun for the interview and need to make their own accommodation arrangement to stay, if required.
- i. The shortlisted candidates for position serial numbers 6 &7shall appear for a personal interview at the Wildlife Institute of India, Dehradun on 19th January 2018 at 9 AM onwards.
- j. Further details of the interview will be communicated to the shortlisted candidates separately. No TA/DA will be given for attending the written test or the interview.

#### **How to Apply**

- a. The entire process for registration and the eligibility test is "Online". Details for online registration and the Qualifying Test will be hosted on the WII's website (www.wii.gov.in). The online registration process will remain open up to Friday, 15<sup>th</sup> December 2017 till 17:00hrs.
- b. All eligible interested candidates are advised to follow the latest updates on the WII's website (<a href="www.wii.gov.in">www.wii.gov.in</a>) for online registration, submission of application and payment of application processing fee, etc.
- c. Candidates will be required to fill in their personal, educational and professional experience profiles online besides uploading a recent passport size photograph. Candidates will make the payment of application processing fee of Rs. 750/- (Rupees Seven Hundred Fifty Only) through the prescribed "Payment Gateway". Payment can be made via Internet Banking/Debit Card/Credit Card through online secured payment gateway. Candidates belonging to SC/ST categories need to pay only Rs 100/- (Rupees One Hundred Only) as communication fee.
- d. Shortlisted candidates called for interview shall produce all documents in original *viz.*, Educational Qualifications, Research Experience, Extra-curricular activities, Date of Birth etc., along with copies of mark sheets of all examinations for verification.

- e. Candidates applying for Project Associate, Senior Biologist, Research Biologist (all components) and Project Biologist can apply for maximum of two positions in any project and pay the fee for every position.
- f. **Terms of Disqualification:** Applications received after the due date, without the application fee, incomplete, or not in prescribed format will be rejected. Mere fulfillment of the minimum advertised qualification and experience requirement DOES NOT automatically entitle an applicant to be called for written test/ interview. The decision of the Institute in all matters relating to eligibility, acceptance or rejection of application, mode of selection will be final and binding on the candidates and no enquiry or correspondence will be entertained from any individual or his/ her agency. At the time of the verification of original documents, if it is found that an attempt has been made by the applicant to willfully conceal, misrepresent facts or canvass in any form, his/ her candidature will not be considered and he / she will not be allowed to appear for the interview. Candidates are required to furnish the declaration form as given in the prescribed application format.

#### **Important Dates:**

Last date of submission of online application form: December 15, 2017 (17:00hrs)

Online Qualifying Test at 17 Centres: December 23, 2017

Result of Online Qualifying Test: By end of December 2017

Personal Interview at WII, Dehradun (for position at S. No. 1 to 5): January 15 -18, 2018

Personal Interview at WII, Dehradun (for position at S. No. 6 &7): January 19, 2018

### **Syllabus for Online Qualifying Test**

General ecology and conservation biology (25 marks) [For candidates applying for position serial numbers 1,2,3,6 and 7 - Project Associate, Senior Biologist Project Biologist and Research Biologist field component]

Basic concepts of ecosystems. Energy flow, nutrient cycles and trophic levels. Definitions of plant and communities, populations and individuals. Species interactions: competition, predation and mutualism. Population demography and dynamics. Carrying capacity. Metapopulation concept. Nature and structure of biological communities. Niche concept. Succession. Factors governing species diversity. Vertebrate biology.

Bio-molecules (DNA, RNA and proteins); Conservation applications of genetics (loss of genetic diversity, inbreeding depression and bottleneck). Population and Habitat Viability Analysis. Small and declining population paradigms. Ecological restoration.

Overview of sampling and experimental design. Probability theory and distributions. Parametric and Non Parametric tests of difference, Correlation and regression analysis. Population enumeration technique.

Major wildlife habitats in India: forests, grasslands, wetlands and deserts. Biogeographic zones and affinities of flora and fauna in Indian subcontinent. Protected Area network. Losses and threats to biodiversity. Habitat fragmentation, barriers and isolation. Climate change.

GIS and remote sensing basics.

*In-situ* and *ex-situ* conservation. Management of small and insular populations. Role of protected areas in conservation. Conservation outside Protected Areas. Translocation and reintroduction projects. Project Tiger, Elephant and Snow Leopard. Human wildlife interactions. Impacts of developmental projects on wildlife.

Legal instruments for conservation: Wildlife (Protection) Act, 1972; Indian Forest Act, 1927; Forest (Conservation) Act, 1980; and Environmental (Protection) Act, 1986. International agreements and conventions (CITES, CMS, CBD, Ramsar etc.).

# GIS and Remote Sensing (25 marks) [For candidates applying for position serial number 4 – Research Biologist GIS component]

Basic principles of remote sensing and aerial photo interpretation. Fundamental laws governing the remote sensing science, Concept of Electro-Magnetic Spectrum and Energy interactions with atmosphere and with earth surface features. Platforms and Sensors, Resolution, Image and False colour composite, introduction to digital data, Digital Image processing, elements of visual interpretation techniques. Advance Remote sensing techniques.

Geographic Information System-Basics, Components of GIS, Coordinate systems and Map Projections, Data Models-Raster and Vector. GIS data and its structure Geospatial Data and GIS operations, attribute data, thematic layers and query analysis, Global positioning systems.

Basic concepts of ecology, Major wildlife habitats in India, Protected Area network. Project Tiger, Impacts of developmental projects on wildlife.

# Conservation Genetics (25 marks) [For candidates applying for position serial number 5 – Research Biologist Genetics component]

Basic theory of population and genetics, applications of genetics in conservation, Nucleic acids, chemical basis of heredity, Mendelian concepts, Types of markers, Phylogenetics, Mutation theory, Evolution at molecular level, Speciation, Selection, Drift, Mutation, Migration, Genetic variation in natural populations, Conservation applications of genetics (loss of genetic diversity, inbreeding depression and bottleneck), Theory of laboratory techniques.

Basic concepts of ecology, Major wildlife habitats in India, Protected Area network. Project Tiger, Impacts of developmental projects on wildlife.